



ESTABLISHED 1859.

Subscription, 10/- a Year, Post Free to any part of the World. Single Numbers, 4d. per copy.
Summer and Winter Numbers, 1/- each.

Prix de l'abonnement: The Chemist and Druggist une fois par semaine, et l'agenda du Chemist and Druggist une fois par an, 12.50 francs par an, franco.

Abonnementspreis: The Chemist and Druggist einmal wöchentlich, und Notizkalender des Chemist and Druggist einmal im Jahre, 10 Mark jährlich, frei in's Haus geliefert.

Precio de suscripcion: The Chemist and Druggist una vez por semana, y el Agenda del Chemist and Druggist una vez al año, 12.50 pesetas anuales, franco.

Postal Orders and Cheques to be crossed "MARTIN'S BANK (LIMITED)."

CHIEF OFFICES: 42 CANNON STREET, LONDON, E.C.

BRANCH OFFICES: MELBOURNE AND SYDNEY.

THIS JOURNAL is regularly supplied by subscription to the whole of the Members of SIXTEEN PHARMACEUTICAL SOCIETIES in the British Empire

CONTENTS: Vol. LV. No. 26.

	PAGE		PAGE
Bankruptcies and Failures	1022	Irish News	1012
Business Changes	1034	Legal Reports	1034
Camwal Reconstruction	1020	Marriages	1015
Chemistry of Santal-wood Oil	1043	Miscellaneous Inquiries	1039
Christmas Windows	1019	New Companies and Company	
Colonial and Foreign News	1013	News	1020
Coming Events	1044	New York Notes	1014
Correspondence	1037	Observations and Reflections	1023
Deaths	1015	Personalities	1016
Dispensing Notes	1039	Pharmaceutical Society of Great	
Editorial Comments:—		Britain:—	
Reciprocity	1024	North British Branch	1030
Wholesale Prescriptions	1025	Pharmacy and Ethics	1019
Medical Prospects and Prac-		Scotch News	1012
tice	1025	South African News	1014
Notes	1027	Trade-marks Applied For	1028
English News	1010	Trade Notes	1035
Festivities	1028	Trade Report	1041
French News	1013	War Notes	1017
Gazette	1022	Winter Session	1029
Hunting the Mosquitoes	1022		

CHRISTMAS HOLIDAYS.

The offices of THE CHEMIST AND DRUGGIST at 42 Cannon Street, E.C., will be closed from Friday evening, December 22, until Wednesday morning, December 27.

THE ANSWERS TO OUR DIARY QUESTIONS

should be sent in by home subscribers before December 31. The questions appear to be attractive, and the results are likely to be of greater interest than usual. Each copy of THE DIARY contains a coupon, and the card attached to it has spaces for the replies. We are to give 10l. 10s. in prizes.

OUR WINTER ISSUE.

THIS falls on January 27, 1900. The publisher has commenced his preparations for it, and an original illuminated cover is in the hands of the printers. We mention that fact to show that the time is ripe for giving orders for circulars, price-lists, or other insets, which firms may think of inserting in our Winter issue. The C. & D. publisher has printed instructions in regard to the "make-up" of insets, which should be obtained. We may add that rough ideas for insets can be worked up by our artists, if desired.

Summary.

PERFUMED AMULETS are figuring in the High Court of Justice (p. 1034).

A BARD sings about the high philosophy which afflicts some in the "craft" (p. 1019).

IN "CHRISTMAS WINDOWS" will be found some pictures appropriate to the season (p. 1019).

THE DISCOVERY of a crystalline compound of santalol is announced by Mr. E. J. Parry (p. 1023).

THE SHAREHOLDERS of "Camwal" decided on Tuesday to adopt the directors' reconstruction scheme (p. 1020).

PHARMACISTS are volunteering for service in South Africa, and the War Office invites applications for 200 more (p. 1018).

WE PRINT NOTES OF A VISIT to the hospital-ship *Maine*, and give portraits of the doctors and chemist (p. 1017).

MR. JESSE BOOT again writes in regard to company-pharmacy, and further expresses his views about qualified directors (p. 1038).

THERE is opportunity for some diplomacy on the part of the Pharmaceutical Council (G.B.) in respect to reciprocity of qualifications (p. 1024).

CAMPBORATED OIL, olive oil, and sweet spirit of nitre, have been the subject of Sale of Food and Drug prosecutions reported this week (p. 1034).

PROFESSOR HODGES of Belfast, one of the original members of the Pharmaceutical Society of Ireland, named in the Act, died last week (p. 1015).

SALICYLIC ACID and salicylates have gone up in price this week. Phenacetin is dearer, and quinine-makers have put $\frac{1}{2}$ d. an ounce on the sulphate (p. 1041).

LIQUOR BISMUTHI has been attacked by Messrs. Cowley and Catford, who produce a satisfactory formula, and throw light on the *rationale* of the process (p. 1029).

SIR RICHARD THORNE THORNE, principal medical officer to the Local Government Board, and a sanitarian of world-wide fame, died suddenly on Monday (p. 1015).

MR. E. M. HOLMES replies to Mr. J. O. Umney's criticism of the Pharmacopœia-standard for asfetida, and maintains that the B.P. quality can be got if buyers pay the price for it (p. 1037).

OF 800 TONS cinchona-bark harvested by the Java Government during the quarter ending September, 530 were shipped to Holland and the remainder were sent to the Bandong quinine-factory (p. 1041).

MR. HORACE DAVENPORT, who for twenty-one years has been at the head of "Camwal," has been presented by the staff and employés with a silver tea-and-coffee service and an illuminated address (p. 1020).

WHOLESALE PRESCRIPTIONS have called from a number of West-End chemists a protest, and this is backed by the Council of the Chemists' Assistants' Union. The whole subject is discussed on p. 1025.

TWO PATIENTS in the Manchester Infirmary have been poisoned owing to a dispensing error. At the inquest it transpired that a dispenser had used liq. strychninæ instead of spt. æther. nit. (p. 1010).

MR. JOHN BARCLAY has found small jaborandi-leaves in coca-leaves. He reports of commercial aqueous tincture of opium, and loss of ethyl nitrate which the Pharmacopœia preparations undergo in keeping (p. 1030).

MR. WALTER HILLS carried West end chemists with him on Wednesday evening in advocating a definite line of Parliamentary procedure on the company-question. Protection of titles and qualified managers form his programme (p. 1032).

LIQ. SODII ARSENAT. and liq. strych. are incompatible. Mr. Thomas Danlop finds that this is owing to the alkalinity of the former liquor. He also, in a paper read before the North British branch, expounded his views on maceration tinctures (p. 1030).

English News.

Local newspapers containing marked items of news interesting to the trade are always welcomed by the Editor.

British Congress on Tuberculosis.

A meeting of representatives of medical, veterinary, and sanitary science, and also principal officials of municipal and county authorities, was held on December 18 to make arrangements for an international congress on tuberculosis in 1901. Lord Derby, who presided, announced that the Prince of Wales had consented to open and preside over the congress. On the motion of the Duke of Northumberland, representatives of the various branches of science and municipal authorities were invited from India and all other dependencies of the Empire. A committee and organising-council were appointed.

Sanitary Inspectors' Association.

A meeting of this Association was held on December 16 at Carpenters' Hall, when a paper was read by Mr. Lewis Thomas, M.A., on the Food and Drugs Act, 1899. Mr. Thomas thought one of the greatest advantages to sanitary inspectors under the new Act would be that no public analyst could be dismissed without the sanction of the Local Government Board. An analyst could not be dismissed by the local governing bodies. It was afterwards announced that Sir John Hutton, L.C.O., had resigned the chairmanship of the Association, and that Sir Hugh Gilzean Reid had consented to occupy the position.

Inadequate Remission.

As a result of the petition presented to the Home Secretary in favour of a reconsideration of the severe sentence (40l. and costs, or two months' imprisonment) passed upon Mr. Thomas Pilbrow, Wolverhampton, for an offence under the Sale of Food and Drugs Act (see *C. & D.*, November 11, page 799, and November 18, page 815), the Governor of Stafford Goal, where Mr. Pilbrow is confined, has been ordered to release the prisoner at the expiration of half his term of imprisonment.

Guardians' Contracts.

Aylsham.—Messrs. McDougall Brothers, for carbolic soap at 20s. per cwt., and soft soap at 20s. per cwt.

East Ashford.—Mr. F. G. Smith, Boughton Aluph, for carbolic soap at 27s. 6d. per cwt.; Messrs. Apps Brothers, B. Bourne, for arrowroot at 1s. per lb.

Reading.—Messrs. Bradley & Bliss, for drugs.

Walsall.—Messrs. Elliott & Son, for single trusses at 2s. 6d. each, double trusses at 2s. 9d. each, olive oil at 5s. per gal., and cod-liver oil at 6s. per gal. Mr. J. A. Bolshaw, for arrowroot at 4d. per lb., and linseed at 14s. per cwt.

Appropriate for the Season.

At the Guildhall on December 16, Frederick Mills was charged, before Alderman Vaughan Morgan, with stealing letters from the letter-box at 120 London Wall, addressed to the Bile Bean Manufacturing Company, and containing postal orders for packets of bile-bean. The Alderman: What is a bile-bean? Detective Hunt: It is for the cure of biliousness and the after-results of over-indulgence. The Alderman: Very appropriate for this season, and (*sotto voce*) after a Lord Mayor's banquet. (Laughter.) There were a number of other charges against the prisoner, who was remanded.

Carbolic Fatality.

James Isdale, manager to Messrs. Liddell & Co., cork merchants, Newcastle-on-Tyne, committed suicide on December 12 by drinking carbolic acid. The death of Mr. Liddell had preyed upon his mind.

A Laudanum-taker.

Last week a German ship's steward, named Heyman having quarrelled with his sweetheart, went to the shop of Mr. H. J. Owen, chemist, Cadoxton, and bought 2 oz. of

laudanum. The man was known to Mr. Owen, who described him as a laudanum-taker capable of taking a tablespoonful of the drug at a time without injury. He appears, however, to have taken an overdose on this occasion for he died.

Fatal Dispensing-error.

An inquest was opened before Mr. Sidney Smelt, the Manchester City Coroner, on December 18, touching the deaths of John Smith and William Wharton, two patients in the Crumpsall Hospital Workhouse. Before taking any formal evidence, the Coroner said one of the patients in the hospital had some medicine given him, and immediately showed peculiar symptoms as of strychnine-poisoning, dying in a very short time. A few minutes afterwards another patient died showing like symptoms. The doctor saw them both. Other patients were taken ill, and the doctor made inquiries about the medicine, examined the different prescriptions, and found one ingredient in each of the bottles. He then stopped the administration of all the medicines containing that ingredient, and it was ultimately discovered that instead of spirit of nitrous ether, solution of strychnine had been accidentally substituted. A large jar, which should have contained spirit of nitrous ether, had been filled with solution of strychnine. This stock-jar labelled "Spirit of Nitrous Ether," which held two or three gallons, was supposed to have been filled in error by one of the dispensers, and the jury had to consider whether the dispensers had been guilty of culpable and criminal negligence. If it had not been for the prompt and intelligent action of the surgeon several more deaths might have occurred. He proposed to devote a special day to the inquiry, and formal evidence only was given. The bodies were identified, and the nurses told of the illness and death of the deceased men a short time after a dose of the medicine, which was the same in each case, had been administered.

At the resumed inquiry on December 20, Charles Henry Cross, chief dispenser, said the stock poison-bottles were kept in an unlocked cupboard in the dispensary, the liquor strychnini having a special label. The spirit of nitrous ether was kept in another cupboard. The strychnine-bottle was not in its usual place after the mistake had been discovered. He analysed the whole of the medicines supplied to the poisoned patients, and found that the liquor strychnine had been used instead of nitrous ether as prescribed. He had two other qualified assistants one holding the certificate of the Apothecaries' Hall, Ireland.

Alexander John Currie, second dispenser, said he remembered sending for some spirit of nitrous ether from the stores. It was sent by the third dispenser, Fletcher Rix, who now said he sent the spirit from the stores, but did not dispensing on the fatal day.

Cross, recalled, said he found the spirit-of-nitre bottle in the place usually occupied by the strychnine-bottle, and the dispenser must have used the wrong bottle.

Albert T. Woodhouse, surgeon, said the two patients had died from strychnine-poisoning, two tablespoonfuls of which contained rather more than $\frac{1}{2}$ gr. of strychnine. There was no means of finding out which dispenser mixed the medicine.

The jury added to their verdict of accidental death from strychnine-poisoning that they were unable to fix the blame upon any particular individual. They recommended more strict labelling in future, and the initialling of all medicines by the dispenser. These recommendations the governor of the workhouse promised to carry out.

Not an Inebriate.

At Brentford on December 19, a young man was summoned for not conforming to the rules of a certificated retreat for habitual drunkards at Twickenham. Defendant entered the house to be cured of the habit of taking drugs, and it was alleged that he had absented himself without leave, and obtained cocaine for injection.

The Chairman of the Bench said he could find nothing in the Habitual Inebriates Acts referring to people addicted to the use of drugs or narcotics.

Mr. Dixon (for the prosecution) argued that the term "inebriate" adopted in the later Acts comprised persons who by reason of taking drugs were incapable of looking after their own affairs, and did not come under the jurisdiction

of the lunacy laws. The drugs produced the same effect as alcoholic liquors.

The Chairman said, in the absence of any decided case, the Bench must rule that an injection of morphia or cocaine was not within the definition of the Act. In the certificate under which defendant was received the words "habitual drunkard" were struck out and "taking drugs" substituted. The Bench would adjourn the hearing *sine die*. Meanwhile Mr. Dixon could look up the case. The Magistrates would like some advice, and they hoped the attention of the Home Office would be called to the peculiar circumstances of the case.

Fires.

On December 14 a fire broke out in a storeroom on the premises of Mr. Baxter, chemist, High Street, Southampton, which was put out by the fire-brigade before much damage was done. The cause is unknown.

A disastrous fire occurred at Stockton-on-Tees on December 17, resulting in damage to the extent of nearly 50,000*l*. One of the sufferers was Mr. W. Clarke, chemist, whose pharmacy in High Street adjoins the drapery establishment in which the outbreak originated, and which was totally destroyed. Despite all the efforts of the fire-brigade the flames spread to Mr. Clarke's storerooms recently erected at the back of his premises, and in which were stored several hundreds of bottles of spirits, cases and tins of paints, collodion, and other inflammable stock. When the flames were finally subdued it was found that Mr. Clarke's shop had fared badly. The new back premises were destroyed, and the stock in the front shop had all suffered either from fire or water. A fortunate feature in connection with the fire was that the underground cellars, in which were three tuns of spirits—chiefly whisky—and a large number of barrels of oil, remained intact, and the shop was thus saved from utter destruction. Three rooms above the shop, consisting of a room for the storage of lint and surgical goods, a room reserved for lectures given to chemists' assistants, in which was a valuable *x*-rays apparatus—which was luckily saved—and also a general storeroom, were also wrecked. Mr. Clarke's share in the damage is estimated at between 3,000*l*. and 4,000*l*.

An Assault-at-Arms.

The Orion Gymnastic Club (many of whose members are connected with the drug and produce trade of Mincing Lane) assisted a good cause on December 19, when, in conjunction with the 4th Vol. Batt. Essex Regiment, they gave their services at what was described as a "Grand Military Assault-at-Arms," in aid of the wives and children of the men of the Essex regiment now at the front. The spacious hall of the Club was filled to overflowing, a fair proportion of the spectators being from the staffs of Mincing Lane houses, together with their lady friends. Fourteen items comprised the programme, which included marvellous feats on the parallel and horizontal bars by the Club, while the Volunteers displayed their prowess with the sword and bayonet. The display was carried through without a hitch, and was a success in every way.

Backed Into.

On December 9 a cart backed into the shop-front of Mr. T. B. Jackson, chemist and druggist, Kendal, shattering the glass and damaging the window-frames.

Alleged Robberies.

At Southwark Police Court on December 15, the four men, Jones, Parker, Lardent, and Royan, accused of stealing and receiving goods belonging to Messrs. Davy, Hill & Son, Yates & Hicks, wholesale druggists, Park Street, S.E., were committed for trial.

Breaking and Entering.

At the Manchester Sessions on December 14, James Douglas and Henry Hodges were charged with breaking and entering the premises of Mr. Alfred Jeans, chemist and druggist, Oxford Road, with intent to steal. The circumstances were recorded in our issue of October 28, page 693. Douglas was sentenced to two months' imprisonment with hard labour, and Hodges was discharged.

By False Pretences.

At Liverpool on December 12, John Hall (65), described as a chemist, was sent to prison for twelve months for having obtained various sums of money from Garston women by false pretences and with intent to defraud.

Neglecting his Children.

At Lambeth Police Court on December 16, James Law (30), described as a chemist, was sentenced to twenty-one days' hard labour for neglecting to maintain his two children, whereby they had become chargeable to the Guardians.

Deaths of Chemists' Assistants.

On December 13, Albert Edward Read, aged 18, a chemist's assistant, lately residing at Brixton, went into the bathroom in his mother's house to have a bath. Half-an-hour later the water was discovered running from beneath the door, and on its being burst open deceased was found lying in the bath, which was overflowing, quite dead. The gas in the room from the geyser was overpowering, being turned on full. At the inquest on December 16, a verdict of accidental death was returned. Deceased was for some time with Messrs. Evans, Sons & Co., Liverpool, and this year entered the employment of Messrs. John Timpson & Co. (Limited), to assist his brother, Mr. Lawrence J. Read, their town representative. He was the youngest son of the late Mr. Charles Read, chemist, Liverpool.

An inquest was held at Ponder's End last week on the body of Ernest James Stovell (32), a chemist's assistant. The evidence showed that Stovell had not been seen for some days, and as the shop where he was employed—that of Messrs. Clark & Sons, South Street, Ponder's End, remained closed, the police effected an entrance, and found the deceased's body lying on the floor, and near it a glass which contained solution of strychnine. Mr. W. G. Clarke deposed that deceased had executed his duties very satisfactorily, and a verdict of suicide while insane was returned.

Mysterious Death of a Chemist's Widow.

An inquest was held at Kempston, near Bedford, on December 14, regarding the death of Margaret Ann Howe (44) widow of an Oxford chemist. It appeared from the evidence that deceased had been residing at Bedford, but visited Kempston with two of her children on December 13, and after trying several shops succeeded in buying carbolic acid from Harriet Hurst, a general-store keeper. She then went to the Fox and Hounds and ordered some porter for herself and ginger-ale for the children. A short time afterwards she was discovered in great pain, frothing at the mouth, and she died a few hours later, medical assistance being of no avail. The bottle of carbolic acid found in her pocket was almost empty, but there was no direct evidence to show that she had taken any of it; and as Dr. Butler, the medical man who attended her, was of opinion that death was due to heart-failure, a verdict of death from natural causes was returned.

Priory Medicines.

At Shoreditch, on December 20, Dr. Wynn Westcott held an inquest on Edward Miller, who was found dead in his bed on Sunday. The landlord said deceased had been ailing for some time, but would not have a doctor. A friend had induced him to go to St. Saviour's Priory to get cough-mixture.

Dr. Hammond, Great Cambridge Street, Hackney Road, said he was called in on Sunday and found deceased dead, and by the bedside was a bottle of medicine and a small tin. He considered it his duty to call the Coroner's attention to the practice of the Priory in supplying medicines in this indiscriminate manner. The medicine contained opium and acetic acid, both poisons, which a chemist or unqualified medical assistant would be liable to prosecution for prescribing.

The Coroner's Officer said he had seen Sister Florence, the chief of the Priory, who said that if the people were too poor they gave the medicine away, but in this case they had charged 2*d*. She also stated that the prescription had been given her years ago by the wife of a clergyman, and there had never been a complaint before.

The Coroner said it was an offence for unqualified persons

to sell poisons. He would lay the matter before the Council of the Pharmaceutical Society, with a view of having this indiscriminate giving or selling of medicines put a stop to.

The jury returned a verdict of death from natural causes.

[Food-preservatives.]

On Wednesday, December 20, the Departmental Committee on Preservatives and Colouring-matters in Food held another sitting, when Dr. Thomas Bond gave evidence as to the harmlessness of boric acid, which he had given internally for many years in 10-gr. doses, chiefly in bladder-diseases, as an antiseptic, and had never found any ill effects, even following its administration for many weeks. He agreed that it would be a proper thing to insist that the presence of the acid should be notified in all articles preserved by it. He had given salicylic acid in the same doses as boric acid, and had never seen the slightest ill effects from it. If used as a preservative, its presence and quantity should be stated. Other evidence having been given, the Committee adjourned.

Irish News.

Local newspapers containing marked items of news interesting to the trade are always welcomed by the Editor.

Irish Pharmacists' Assistants' Association.

The Hon. Secretary of this Association informs us that the annual dance will be held at Dublin on January 26, instead of December 26, as stated in last week's issue.

Personal.

Professor O. R. C. Tichborne, Councillor of the Pharmaceutical Society of Ireland, has been elected a member of the committee of science and its industrial applications in connection with the Royal Dublin Society. He has also been elected a governor of the Royal Irish Academy of Music.

Cork Chemicals.

At the last meeting of the Cork Town Council the tenders for the annual contracts for chemicals and disinfectants were declared. For sanitary requisites and chemicals, the tenders of the Cork Chemical and Drug Company, Cork, and Messrs. Bible Brothers, Cork, were accepted. For other disinfectants of Irish manufacture the tenders of the Cork Chemical and Drug Company, Cork; Messrs. Kiloh & Co., chemists and druggists, Cork; and Messrs. Mallin & Co., chemists and druggists, Dublin, were accepted. For paints, oils, glass, &c., the tenders of the Cork Chemical and Drug Company, Cork; Messrs. Bible Brothers, Cork; and Messrs. John Atkins & Co., Cork, were accepted.

Medicine-contract.

At the last meeting of the Killarney Board of Guardians it was moved, in accordance with notice of motion, that the medicine-contract which had been accepted, 15 per cent. over the lowest tender, be rescinded, thereby saving 60*l.* a year, on which the Local Government Board would not allow recoupment. An amendment was proposed that Mr. Crowley, the former contractor, be reappointed, on the ground that the percentage—35—allowed by him off the official list compared favourably with other unions. The Chairman did not think a similar case existed in Ireland. After some discussion the matter was referred to the L.G.B. for decision.

Sulphuric-acid Patent.

Judgment in the case of Webb v. Kynoch & Co. (*C. & D.*, April 23, 1898), which was taken step by step to the House of Lords, was given on December 18. When the case was heard before the Master of the Rolls judgment was given for the plaintiff. In the Court of Appeal this decision was upheld, but in the decision just given in the House of Lords the previous decisions are reversed, judgment being for the defendants. The Lord Chancellor, in giving judgment, said he adopted the view that the patentee must describe and ascertain his invention with such certainty as not to deter people from using processes that are old by purporting to claim for them a monopoly.

Labelling Liniments.

An inquest was held on December 18, at Cork, into the circumstances under which a man named Eugene O'Sullivan died from poisoning.

The wife of deceased stated that her husband had been in the workhouse hospital suffering from weakness of the limbs, and left the union on Thursday. He subsequently got medicine at the dispensary. There was a white label on the bottle. Witness could not read, but understood her husband was to take his medicine three times a day.

Mary Kiely, who fetched the medicine, said she could not read. The medicine was procured in a lemonade-bottle which bore a red label.

Dr. M. J. O'Connell said he prescribed a liniment for deceased for rheumatism, and told him it was deadly poisonous and only for external use.

Mr. W. Lee, pharmaceutical chemist, Shandon Dispensary, said in the case of a liniment the bottle would be labelled in red "For external use only," and with the word "Caution!" He also told persons to be careful with external remedies.

Replying to questions, witness said that the practice in some chemists' shops was not to label liniments "Poison," but he had often seen the word blown on the bottles. He knew the law required that liniments purchased over the counter should bear the label "Poison," but this was not required in the case of a dispensary.

A verdict was returned that death was due to poison taken in mistake. The jury further strongly condemned the negligent system prevailing at Irish dispensaries in cases of poisonous liniments, and requested the Local Government Board for Ireland to devise better means of safeguarding the poor attending dispensaries.

Scotch News.

Local newspapers containing marked items of news interesting to the trade are always welcomed by the Editor.

Chemistry under Difficulties.

A chemical student at the Andersonian Laboratory, Glasgow, writes to the Glasgow evening papers complaining of the dilapidated condition of the buildings. He found his bench, amongst others, flooded with water the other morning, and not only was the work of many days thrown away, but several valuable books were destroyed. The snow melting on the roof had made its way down the building until it reached the chemical laboratory. A new building, he suggests, is the only cure.

County Comradeship.

Mr. John Foster, chemist, Sauchiehall Street, Glasgow, has been elected President of the Glasgow Perthshire Oriental Society, and he succeeds in this office many distinguished predecessors, amongst them Sir James Campbell, of Strathcathro, and Sir H. Campbell-Bannerman, the leader of the Opposition in the House of Commons. The Society has invested funds amounting to 10,000*l.*, and does much good in assisting Perthshire men and women, or their descendants, who find the western metropolis less beautiful than their county's glens. Mr. Foster presided at the annual dinner of the Society on Thursday, December 21, and it promised to be a great success.



MR. JOHN FOSTER.

French News.

(From our Paris Correspondent.)

CONCESSION TO BRITISH TRADE.—An arrangement has been arrived at between the French and British Governments under which no charge will be made from January 1, 1900, for the consular visa to certificates of origin.

THE PELLETIER-CAVENTOU MONUMENT.—The subscriptions towards defraying the expenses of this monument are coming in slowly but satisfactorily, and the amounts received through the initiative of the *C. & D.* in giving the monument the publicity of its columns are much appreciated, inasmuch as it assists in attesting the international character of the homage rendered to Pelletier and Caventou. The committee has decided to place the following inscriptions on the pedestal:—

(1) To the pharmacists Pelletier and Caventou, Professors at the Paris Superior School of Pharmacy, Authors of the discovery of Quinine.

(2) Pelletier, born at Paris, 1788, died 1842. Caventou, born at St. Omer, 1795, died 1877.

By their precious discovery, by their disinterestedness, they have merited the title of benefactors of humanity.

(3) International subscription 1897-1900.

(4) This monument was erected the, 1900, in the presence of the delegates of pharmacy of all nations.

It may be added that committees have been formed at Amsterdam, Brussels, and other places, for the purpose of collecting subscriptions.

PARIS SOCIETY OF PHARMACY.—At the December meeting of this Society M. Yvon was elected Vice-President for the coming year, and M. Barillé was nominated the annual Secretary. Professor Planchon, as last year's Vice-President, will, in the usual course, be next year's President. M. Barillé announced that a proposal is now before the French Parliament for the translation of the remains of Parmentier to the Pantheon at Paris. He spoke of Parmentier as one of the glories of French science, and the unanimous desire was expressed by the Society that the proposal should be carried out. M. Marty presented to the meeting the following three curious samples of popular Japanese medicaments, which he has received from a French surgeon of the Navy:—

(1) Yu-tan hin, bear's liver, a remedy prepared with the liver of bears, and used in gastralgia and dyspepsia.

(2) Ho-tan-guan, a precious medicine consisting of cordial pills used for indispositions occasioned by heat and for seasickness.

(3) Kan-ho-guan, a febrifuge paste given as a treatment in certain cases of diarrhoea, &c.

M. Marty also said a few words on the subject of sulphate of quinine, and mentioned that experiments had proved to him that the temperature of 100° C. is sufficient for completely drying sulphate of quinine.

NEW ASSISTANT PROFESSORS AT THE PARIS SCHOOL OF PHARMACY.—One of the features of the new scholastic year, which commenced last month at this school, has been the official promotion of a promising bevy of young scientists to the posts of assistant professors. M. Moureu, the new assistant professor of organic chemistry, is a well-known and active member of the Paris Society of Pharmacy. He was appointed in 1891 Pharmacien en chef des Asiles de la Seine. M. Paul Lebeau was M. Moissan's preparator, and is now assistant professor of inorganic chemistry. M. Coutière assists Professor Milne Edwards at the Laboratory of Anatomic Zoology at the Ecole Pratique des Hautes-Etudes, but he was interne pharmacist at the Aubervilliers Contagious-diseases Hospital in his student days. He was at the South Kensington Natural History Museum a year or two ago, studying some of the smaller crustacea. His appointment as assistant professor of zoology at the Paris School of Pharmacy brings him once more into contact with his old speciality. M. Grimbart, head pharmacist at the Cochin Hospital, is familiar at the Societies of Pharmacy, Biology, and Therapeutics. M. Perrot, who is assistant professor of botany and a man of high scientific attainments, is the Secretary of the 1900 Botany Congress. All these gentlemen are doctors of science, and, of course, pharmaciens de première classe.

Colonial and Foreign News.

DUTCH EAST INDIAN TARIFF.—The Second Chamber of the Dutch Parliament has unanimously adopted a Bill extending the import and export tariff-duties of Java and Madura to the whole of the Dutch East Indian Archipelago.

THE ITALIAN PHARMACOPOEIA.—The Italian Ministry was interpellated recently as to when it was intended to publish a new edition of the Pharmacopœia. The Minister replied that the Commission had asked for a respite in consequence of the recent discoveries of new remedies.

PROPOSED RUSSIAN OIL TRUST.—It is reported from Amsterdam that a scheme is being promoted for a general amalgamation of all the petroleum companies carrying on operations at Baku. The object of the proposed combination is the formation of a Russian enterprise of the type of the American Standard Oil Trust.

ROSE-CULTIVATION EXTENDING.—*The Levant Herald and Eastern Express* says that with a view to the development of the industry connected with the manufacture of otto of roses, the Turkish Government has sent 100 000 rose-trees, which it had bought in the province of Kezanlik, Bulgaria, into nearly all of its Asiatic provinces. These plants will be distributed to agriculturists, together with instructions for their treatment.

THE BIGGEST "PHARMACY" SAVED.—In the disastrous fire which occurred on November 29 at Lippincott's, in Philadelphia, the plates of Remington's "Practice of Pharmacy" were saved without injury. A few of the plates of the "United States Dispensatory" were destroyed. A new issue of the "Practice of Pharmacy" will, we learn, be out in a few weeks, and the "United States Dispensatory" as soon as possible, the paper having been ordered for both books while the fire was still burning.

APOTHEKER AND DRUGGIST.—The German apotheker's income from other sources than prescriptions is likely to be soon smaller, as the number of articles "surrendered to free traffic"—i.e. which a druggist may sell—is going to be increased. To the wording which at present exists stating that "remedies may only be sold in pharmacies" will be added "expedients for the removing of illness both of persons and animals" may be sold by others than a pharmacist. The meaning of the word "remedy" has led to a great many lawsuits and punishments of druggists for encroaching upon the privileges of an apotheker.

SUBSTITUTION IN THE UNITED STATES.—We learn from our American contemporaries that the first legal case arising from substitution of one article for another in a prescription has been heard in Chicago and decided against the substitutor. Messrs. Fairchild Brothers & Foster, of New York, sought an injunction to restrain a Chicago druggist from substituting a spurious preparation for Fairchild's essence of pepsin, and they brought evidence to prove that the defendant had so done in several instances in which the Fairchild essence was mentioned in the prescription. The Judge held that the defendant had committed the offence, and made an order prohibiting him from repeating it, charging him with the costs of the case, which amounted to about 100l.

GERMAN POSTAL CHEQUES.—In a memorandum which has been laid before the Federal Council at Berlin, the principles of a new scheme of postal cheques are sketched. In Berlin, Breslau, Cologne, Dantzic, Frankfurt, Hamburg, Hanover, Carlsruhe, and Leipzig it is proposed that postal-cheque offices are to be established at which anyone may open an account by making a deposit of 100m, which, however, will not bear any interest. The holder of a cheque account will be enabled to have collected at his postal-cheque office all the deposits made to his order at any office, and he can, by means of cheques, dispose at any time of any amount. Payments up to 10,000m can be made in his favour at any post-office, either by himself or by any other person, on a special form where the name and number of the cheque account is printed. There is no maximum fixed for the amount of the cheque account. Any modification is immediately communicated to the holder of the account.

South African News.

(From our Cape Correspondent.)

"JACKALL GIFT."—Some excitement was caused in Worcester and vicinity, U.C., just before the mail left, over a small parcel of poison (Gift) which was found at the railroad station, where it had evidently been left by some farmer who had taken a little too much "dop" on board. Rumour that a parcel containing 10 lbs. of strychnine soon got round, and the apothecary who administers to the wants of the physic-taking populace was being blamed right and left for selling such a large quantity; and, like all such yarns, it lost nothing as it travelled. The Magistrate got wind of the sale, and quickly summoned a posse of police to go off in hot pursuit. A call was made at the station on the way, when the offending package came in for official attention. On cutting the string the "beak" found 1lb. of arsenic which a Dutch farmer had purchased for sheep-dipping purposes. Such a fiasco as this serves to bring out the fact that the chemist located in the country districts has not the control over the sale of poisons that he should have. A Dutchman, or any other man for that matter, has only to make application to his "poisoning club" to get as much strychnine as he wishes, under the name of "Jackall Gift." Failing at the club, he can purchase it at the drug-store, and even at general stores, without the slightest difficulty. The new Pharmacy Act when it comes into operation should, if properly enforced, provide against this sort of thing.

PHARMACEUTICAL SOCIETY OF CAPE COLONY.

The quarterly meeting was held at Cape Town on November 24, under the chairmanship of Mr. F. W. C. Thomas, one of the Vice-Presidents. Among other trade members present were Mr. James Jones, Mr. Jeffrys (J. T. Pocock & Co.), Messrs. Geo. Darroll, Hamilton, and Vogelgezung. The chief topic for discussion was the

HALF-HOLIDAY BILL.

Mr. M. A. L. Tothill proposed, and the Secretary of the Society seconded, that members do not join the "tradesmen" in closing on any particular day as arranged for in the Bill. Mr. Tothill advocated a half-holiday for all assistants, the particular day to be arranged between employer and employé. This was agreed to.

The "hours of business" came in for some share of attention, especially Sunday hours. Mr. Tothill said that on various occasions he had walked up Adderley Street as late as 9.45 P.M. and noticed Petersens and Heynes, Mathew & Co. still open. He referred to weekdays. Mr. Hamilton (of Cameron & Hamilton) said that he had managed Petersen's pharmacy for nearly three years, and could, therefore, say that this particular firm closed to time. He was aware, however, of Messrs. Heynes, Mathew & Co. keeping open later. Mr. A. J. Mathew (President of the Society) being absent, the latter statement passed unchallenged. In suburban Cape Town some shops are open nearly all day on Sundays, and this is considered by the Society as unnecessary, even from a business point of view, as the turnover is but a few pence. Eventually the meeting decided to open and close on Sundays as follows: 9 till 1, and from 6 to 9; on week-days the hour of opening to be optional; the closing-time to be 9.30 throughout the year. Members of the Society not present and other pharmacists are to be asked to close, a circular letter being sent to them for signature.

THE OLD QUESTION OF "CUTTING,"

and prices generally, was introduced by a member who said he obtained 2s. for a 6-oz. mixture; he thought that too little. It was not possible, however, to persuade the 1s. 6d. man to advance—result, a hearty laugh. The word "patents" when mentioned brought a frown to many a brow. It was all the big firms' fault—they "cut." Whether the wholesalers are to blame to the extent imagined is another matter. The meeting closed with the usual vote of thanks to the Chairman.

New York Notes.

(By the Man from London)

JOINED THE "MAINE."—Mr. Albert Spotts, one of the American apothecaries who has joined the hospital-ship *Maine*, hails from Philadelphia, and was prescription-clerk to the Haas Pharmacy, New York City, one of the best dispensing-houses in the city. Mr. Spotts is a good pharmacist, and has, besides, considerable medical experience.

AN ANTIDOTE FOR CARBOLIC ACID.—A Brooklyn doctor claims to have proved by personal experiments, as well as by treatment of patients, that alcohol is a perfect antidote for carbolic-acid poisoning. He says that in all cases where poisoning by carbolic acid has occurred, four times the amount of whisky should be at once given, in case pure alcohol should not be at hand. [This is an experiment we would rather not trust to.—ED.]

A LONG SUIT.—Seven years ago Arthur Mundt, son of Martin Mundt, went into a drug-store in New York City and asked for ten grains of quinine. The drug clerk, through a mistake, gave him morphine, which the young man took, and died after a few hours. The father brought an action to recover damages against the druggist, but before the case was tried he died. A brother of the unfortunate Arthur carried the action on as administrator to his father, and the case will now be settled.

PLAGUE-SCARE.—New York was scared somewhat by a steamer arriving recently from Santos with two cases of what was believed to be bubonic plague on board. Three weeks before the Health Officer's agent at Santos cabled that the plague had broken out there. Consequently every precaution was taken by the Quarantine officials, the sick men being sent to Swinburne Island, and the rest of the crew to the detention-pavilion at Hoffman's Island, while the steamer itself was submitted to the steam-disinfection process.

SODA-FOUNTAINS.—I notice Messrs. Mathews & Co., of New York, are introducing their soda-fountains to the English trade through THE CHEMIST AND DRUGGIST. I have no doubt a soda-fountain is more or less of a mystery to most druggists at home, though in New York a drug-store is not considered properly fitted without a soda-fountain, the best dispensing firms, who would scorn even in these times to sell patent medicines at a cut rate, making a prominent feature of this money-making side-line. Speaking from personal experience, I can recommend the soda-fountain as a good investment. There is nothing very peculiarly foreign to learn about the business; any youth can make the flavouring syrups and attend to the fountain generally. At seaside resorts like Brighton, Margate, &c., the fountain should have a great run through the best part of the year. I have been at Brighton when a long cool drink from the soda-fountain would have been very acceptable. The fountain brings people into the store, and is an excellent advertisement, besides being very profitable.

THE MOLINEUX POISONING-CASE.—In connection with this case, which is rousing considerable interest in New York, Messrs. Kutnow Brothers (Limited), manufacturers of Kutnow's powder, threaten libel suits against various New York papers. A young man named Roland Molineux is charged with poisoning his aunt, Mrs. Adams, by sending to her a bottle labelled as containing a well-known proprietary article, but which really was filled with cyanide of potassium. In the police-investigation of the case it came out that a bottle of Kutnow's powder was found in the room of Harry Barnett, who died mysteriously a month or so previous to the Adams case, and who was in some way connected with Molineux. The yellow journals thereupon bought bottles of Kutnow's powder and had pictures made of them, calling them facsimiles of the powder-bottle containing the poison administered to Mrs. Adams. As a matter of fact, the bottle of Kutnow's powder found in Barnett's room had been unopened, and was in no way connected with Barnett's death. The trial of Molineux commenced at the Court of General Sessions on December 4, an enormous crowd besieging the courthouse.

THE *New Idea*, published by F. Stearns, of Detroit, Mich., describes itself as "a pink paper for pale pill-rollers."

Marriages.

DEY—PATERSON.—At Edinburgh, on December 14, by the Rev. Andrew Keay, Alexander John Dey, chemist, to Isabella Scott, second daughter of Mr. Andrew Paterson, Edinburgh.

NEWBERRY—CANTON.—On December 16, at the Parish Church, Mortlake, by the Rev. Walter Furneaux, Rural Dean, Ernest Arthur Newbery, M.R.C.S. England, dental surgeon, of 2 Victoria Place, Eastbourne, son of Arthur Le Blanc Newbery, Elmhurst, Barnet, Herts, and 27 and 28 Charterhouse Square, E.C., to Florence Fanny, daughter of Charles Barry Canton, 5 Royal Parade, Kew Gardens, and the London and County Bank, Richmond, Surrey.

Deaths.

THORNE.—Sir Richard Thorne, K.C.B., F.R.S., M.D., D.Sc., LL.D., principal medical officer to the Local Government Board, died suddenly on December 18. Sir Richard attended the recent meeting of the General Medical Council, on which he was a Crown representative, and took an active part in the proceedings, especially in deprecating interference with dispensing in doctors' surgeries. He had long suffered from varicose veins, and was resting with the view to relieving the pressure, when on Monday a blood-clot got into the circulation, and he quickly succumbed. Sir



Richard was the son of a Leamington banker, and was born at Leamington on October 13, 1841. He was educated at the Mill Hill Grammar School and in Paris, his medical studies being pursued at St. Bartholomew's Hospital, London. He graduated M.B. London in 1866 (double first-class), having previously qualified as M.R.C.S. and L.R.C.P., and he was elected F.R.C.P. in 1875. After holding some hospital appointments in London he about 1870 got one of the staff positions in the Medical Department

of the Privy Council (now attached to the Local Government Board). In 1885 his knowledge of French led to his selection as delegate of the British Government at the International Sanitary Conference in Rome, and work of this character brought him quickly to the front, so that when Sir George Buchanan, the head of the department, retired a few years ago, Sir Richard (who got his K.C.B. in 1897) was appointed his successor. His administration had been uneventful, because he had devoted himself to the organisation of schemes for the prevention of epidemic diseases, especially those which are imported; and, while the country has unquestionably benefited by his great administrative ability, it has not felt to whom it chiefly owed immunity.

WATSON.—At Willowbank House, Kersal Dale, Manchester, on December 15, Mr. David Watson, D.Sc., F.C.S., chemist to the Broughton Copper-works, Salford, and Chairman of the Manchester section of the Society of Chemical Industry. Aged 53.

HODGES.—Dr. John Frederick Hodges, M.D., one of the original members of the Pharmaceutical Society of Ireland named in the 1875 Act, died in Belfast on December 13. Aged 84 years. He was professor of agriculture and medical jurisprudence in Queen's College, Belfast, and was one of the old school of medical chemists. He became an L.A.H. in

1838, having previously taken the Glasgow Faculty diploma, and then went to Giessen, where he graduated M.D. There his studies under Liebig naturally diverted his attention to agricultural chemistry, and his earliest publications were in chemical literature. He was elected a Fellow of the Chemical Society on April 15, 1844, and was one of the oldest members, others living who were elected before him being Dr. Francis Williams, elected November 7, 1842, Mr. William B. Randall, pharmaceutical chemist, Southampton, elected April 18, 1843, and Sir Douglas MacLagan, M.D., Edinburgh, elected January 15, 1844.



Professor Hodges was also a member of the Institute of Chemistry, of the Society of Public Analysts, and of many other bodies, including the German Apotheker Verein. Our portrait of Professor Hodges represents him when he was a member of the Irish Pharmaceutical Council. At the morning service on Sunday last in All Souls' Church, Belfast, the Rev. E. I. Frigg made reference to the death of Professor Hodges, and at the conclusion of the service the Dead March in "Saul" was played on the organ. [Our portrait shows Dr. Hodges as he was when on the Irish Council. We shall give a more recent one next week.]

WILKINSON.—The *Chemist and Druggist of Australasia* records the death, at the age of 75, of Mr. Thos. M. Wilkinson, one of the leading chemists of Dunedin (N.Z.). He was an Englishman, and after apprenticeship to a surgeon he went to Dinneford & Co's, London, and subsequently to Bewley, Evans & Co's, Dublin. In 1858 he went to Melbourne, and



entered the employment of H. & E. Youngman. Three years later he went to Dunedin, and purchased one of the pharmacies in the city—that of Mr. A. Wilson—and carried it on successfully until his death, having latterly had associated with him his only son. Mr. Wilkinson was a member of and President of the New Zealand Pharmacy Board for some years.

MICHIGAN UNIVERSITY.—The department of pharmacology of this university are going to grow the plants required for research work. Several acres of ground will be planted, and the cultivation be conducted on a large scale. The plan is the outcome of the botanical gardens which were established three years ago.

Personalities.

MR. P. GERALD SANFORD, F.I.C., 20 Cullum Street, E.C., has been appointed analyst for Penzance.

MR. H. KELK, assistant dispenser at the Evelina Hospital, has been appointed dispenser to St. Saviour's Poor-law Infirmary, East Dulwich Grove.

DR. NESTOR TIRARD, the Secretary to the British Pharmacopœia Committee, has been appointed Professor of Medicine at King's College, London.

MISS MARY ARIEL STEWART, daughter of Mr. J. Stewart, chemist, Cheltenham, has now added to her medical qualifications that of Bachelor of Surgery of the London University.

MR. A. C. SEWARD, M.A., F.R.S., Fellow of St. John's College, Cambridge University, lecturer in botany, and a former examiner for the Pharmaceutical Society, has been elected a senior Fellow and tutor in natural science at Emmanuel College.

THE Chinese Minister has continued his inspection of British industries during the past week, visiting on December 15 the works of the United Alkali Company (Limited) and the soap-works of William Gossage & Co., at Widnes, and on December 18, Messrs. Goodall, Backhouse & Co.'s, and other factories in Leeds.

MR. ALDERMAN T. SCOTT FOSTER, J.P., who was Mayor of Portsmouth when the British Medical Association met there this year, was on December 15 entertained by the medical men of the borough, under the presidency of Dr. Ward Cousins, and presented with a silver loving-cup in appreciation of his kindness and hospitality, and a bracelet set with diamonds for Mrs. Scott Foster. Dr. Ward Cousins spoke in warm terms of the ex-Mayor's hospitality to the Association. We may add that Mr. Scott Foster was formerly in business as a chemist and druggist at Landport, and is now a successful dentist in Portsmouth.

MR. H. S. WELLCOME has given us another example of his artistic skill in a medicine-chest which he has designed for and presented to the American ladies' hospital-ship *Maine*. The chest is made of oak covered with Carthaginian cow-



hide, and the leather is the part upon which Mr. Wellcome's designs have been carried out. The following is a description of the tooling:—

On the top panel appear the Union Jack and Stars and Stripes entwined, portraits of George Washington, Queen Victoria, and President McKinley, and representations of the American Eagle and British Lion. The front panel bears portraits of Lady Randolph Churchill, Mrs. Ronalds, and Mrs. Blow (of the Hospital-ship Committee); a picture of the ship itself; a scene representing the British Lion wounded by an arrow (which lies broken at his side) being administered to by Britannia and Columbia. A frieze is formed by a representation of American-Indian Wampum, also upon it are depicted Brother Jonathan and John Bull grasping hands. The panel at each end of the chest represents Britannia and Columbia supporting a banner bearing the Red Cross, and on the panel at the back the British regular and Colonial Lancers, and a Highland brigade are shown charging a Boer force.

We noticed Keble's line—"No distance breaks the tie of blood," and Bayard's phrase—"O'r kin across the sea," inscribed on the chest. In addition to this chest a smaller

one for each ward has been presented to the *Maine*, and, as mentioned under "War Notes," Mr. Wellcome completely equipped the dispensary of the ship.

MR. A. EBERLIN, Hon. Secretary of the Nottingham Chemists' Association, replying to Mr. Boot's complaint (see C. & D. December 16, page 988) about debarring the assistants of Boots (Limited) from participation in the advantages of pharmaceutical education, points out that the Association only admits as "associates" the employés of duly qualified chemists or medical practitioners. The Association naturally arranged with the University College for the advantage to apply to their associates only, and Mr. Boot had the remedy entirely in his own hands by qualifying as a chemist. The rule as to "associates" had been in force since 1870 long before drug-companies came into existence. Mr. Boot has replied to this letter, pointing out that it does not controvert his assertion.

AMONGST the Christmas cards which we have received is one from Mr. Valentine Norman, chemist and druggist, Godalming, in which is inserted a group-photograph of his



triplets, now 8 years old. Mr. Norman thinks they are the only triplets in connection with the drug-trade; but if they are not, and there is another group that can beat this one in healthy appearance and bright intelligence, we shall be only too pleased to receive a photograph of it.

"ARGON," that is Lord Rayleigh, D.C.L., F.R.S., otherwise John William Strutt, figures in *Vanity Fair* gallery this week. The portrait is like him. "Jehu Junior" tells us that Lord Rayleigh left Trinity, Cambridge, as Senior Wrangler and First Smith's Prizeman. He is, or has been, a Professor in all sorts of places; he is an honorary member of countless foreign societies; and he is even Adviser to that very conservative body, the Trinity House. For he is the great scientist who discovered Argon—in the air; thereby exploding the views of all the noble army of chemists who had sworn that our air was only nitrogen and oxygen diluted with a few impurities. He has also written books—dull learned books mostly—on "Sound," "Heat," and such-like matters of Physics: which are standard books; for he is a great authority who has long since put his own name in the front rank of Science. He is indeed a very great chemist who has done much for the Royal Society; and he is so earnest that his unæsthetic home of white brick in the wilds of Essex is a glorified laboratory. He runs a milk-walk in London, but for all that he is an honest industrious fellow, and a good Lord-Lieutenant [of Essex] as times go. Though he is generally brewing a vile odour, he is really a great man. He married a sister of Mr. Arthur Balfour. It strikes us that J. J. is not so well posted in regard to the distinguished physicist as he might be.

THE production of phosphorus has recommenced in Spain after a stoppage of some years, and in December last 1,000 kilos. were exported. The only works are in the province of Caceres, where, although many claims have been taken up, but little work has been carried on.

War Notes.

MR. ALFRED CHARLES PRESTON, of Messrs. Thomas



MR. ALFRED CHARLES PRESTON.

Hodgkinson, Preston & King, has, as Major of the Tower Hamlets Rifles Brigade, volunteered for service in South Africa with his own regiment or any regiment which the War Office may attach him to. His eldest son, Mr Ronald Holt Preston, who, as a student of St Mary's Hospital, is a lance-corporal in the Volunteer Medical Staff Corps, has also volunteered.

AMBULANCE - MEN. — A young gentleman in Enfield, who is attached to a Volunteer ambulance - corps, offered his services to the War Office on Saturday, December 9. He received a reply on December 11 to

the effect that if he could get nine more to go with him they would take his offer. He had the nine before the end of the day, and the ten sailed for the Cape on Saturday, December 16—We hear that Mr. Tweedie, one of the dispensers at St. Bartholomew's Hospital, has gone to South Africa as a volunteer for medical service.—We have had some inquiries in regard to volunteer service in the Royal Army Medical Corps, either in South Africa or at home, and it will, therefore, be useful to state that applications should be addressed to the Army Medical Department, 18 Victoria Street, London, S.W. (See also next page).

"UNDER TWO FLAGS."—This was the phrase, reminiscent of "Ouida," which the Duke of Connaught used last

red cross in the centre), and soon the flag floated from one mast and the Stars and Stripes from another—"The first occasion that that has happened in history," added the Duke. American citizens in London have, under the inspiration of their women-folk, done well towards their kin, led by Lady Randolph Churchill, having equipped an Atlantic transport liner as a hospital-ship to go out to South Africa for our wounded soldiers, bring them home, and go back again and again until the war is over. After the ceremony we had a walk through the wards with one of the surgeons. There is accommodation in the wards for 218 patients, but about forty beds can be added. The officers' wards are situated aft, and in equipment they are scarcely distinguishable from those for the rank-and-file. They are bright and airy, and everything appears to have been done in them which will give comfort to sick soldiers and make their journey over-sea pleasant. For example, the gangways between the rows of beds are covered with corrugated indiarubber matting. The chief of the Medical Staff is Surgeon-Major Cabell, who has but recently returned from Manila, and has retired from the U.S. Army. Under him are Drs. G. E. Dodge and H. H. Rodman, of New York, C. H. Weber, of Philadelphia, and T. W. Hastings, who have volunteered for the service. They have a staff of male and female nurses under them, all of whom have graduated in this department of service, and all are American—even the dispensers are American citizens, who have come over to share in this tribute of kinship. Mr. Albert Spotts, the chief

dispenser, is an 1896 graduate of the Philadelphia College of Pharmacy; and his assistant, Mr. Haigh, who comes of a Yorkshire family, is a graduate of the New York College. Mr. Spotts has his headquarters several flights of stairs down from the upper deck. We cannot say much about it this week, for it was still in the hands of the British workman when we were there, but it promises to be a very compact little dispensary. The medications are adapted to its capacity. Messrs. Burroughs, Wellcome



MR. ALBERT SPOTTS.

& Co. have been liberal in their gifts of medicines of all kinds, having offered to supply the whole of the medical equipment (which we understand the committee accepted), including the medicine-chests, referred to separately. They have filled up the dispensary according to government regulations for hospital ships.

Messrs. Parke, Davis & Co., through Mr. F. M. Fisk, their European manager, have given fluid extracts, tinctures, and other drug-supplies, as well as a bountiful supply of Mosquera beef products, while they have also arranged for the supplies of surgical instruments, most of which, by the way, come from Messrs. S. Maw, Son & Thompson. In the operating-room there is a splendid operating-table, with which the surgeons seemed to be delighted—this is lent by Messrs. Maw—and there is an exceptionally good radiograph equipment and other accessories to military surgery. Naturally public attention is chiefly attracted to these details, but it may fairly be claimed that the pharmacists on board will have important work to do. Mr. Spotts comes to his work with excellent experience. He was for a time with Evans, of Philadelphia, and more recently has been in a New York Fifth Avenue pharmacy, while he is also familiar with the duties which will fall to him during the next six months through Volunteer apothecary service in the United States. We hope to have the opportunity of giving Mr. Spotts's experience on board the *Maine* later on, as he has promised to make jottings for us as he goes along. He is a quiet, observant American gentleman, and has an excellent assistant in Mr. Haigh. They have, like all the Medical



DR. RODMAN. MAJOR CABELL. DR. DODGE. DR. WEBER.

Saturday afternoon when he presented the hospital-ship *Maine* with a Union Jack from the Queen (it had the Geneva

Staff, given themselves to this work more for the love of the thing than for the reward attached to it, and that is a good reason why we in British pharmacy should make this acknowledgment of the service they are to do to our crippled fellow-countrymen. There is scarcely an American citizen in London who has not been working hard to equip the ship, including most of those connected with the drug-trade. Amongst those who supported Lady Randolph Churchill in her reception of the Duke and Duchess of Connaught and the Marchioness of Lorne were Mrs. John Morgan Richards, Mrs. Van Duzer, and Mrs. Mattox. Although the Duke spoke of himself as an English soldier, he did not refuse to accept the Canadian emblem of peace—a gold maple-leaf—which Mrs. Richards offered to him on behalf of Miss Mattie Fulford, the daughter of Mr. George T. Fulford, the President of the Williams Medicine Company.

SECOND LIEUT. T. WILLIAM WHIFFEN, of the 1st Battalion Royal Inniskilling Fusiliers, was severely wounded at the recent battle on the Tugela. Lieut. Whiffen is the eldest son of Mr. T. J. Whiffen and grandson of Mr. Thomas Whiffen, the well-known quinine-manufacturers, of Battersea. No particulars as to the nature of his wound are to hand, but the War Office has been requested to telegraph for further particulars, which may be expected by Friday. A portrait of Lieut. Whiffen is to appear in *Black and White* this week.

"THE BACKGROUND OF BATTLE" is the subject of a poem written by Mr. Robert Kirkness, chemist, Paignton, and used on the front page of a circular on which he advertises some specialities. One of the best verses is—

Thus we who are here, safe, with nothing to fear,
Have a work and a duty to do;
We must help with a will, all the poor and the ill
Who belong to our lads brave and true.

Mr. Kirkness intimates that 1*d.* of the money paid for any of the medicines, &c., listed on the sheet will be devoted to the Relief Fund.

A CHEMIST'S EXPERIENCES.—In the *Natal Mercury* of November 16 there is an interesting story of the capture of Dundee told by Mr. F. S. Ritson, a young chemist who served his apprenticeship with Loewenstein & Co., of Johannesburg, and was afterwards a partner in the firm of Shapiro & Ritson, of Bree Street, Johannesburg, which dissolved about a year ago. Shapiro is now in the Boer ambulance corps, and Ritson was in Dundee when it was taken by the Boers. He states that after the looting of the town by the Boers on October 24, about seventy of the British wounded were taken to Pretoria, while about eighty-five were removed to Ladysmith. On November 3 all the inhabitants of Dundee were ordered to proceed to Pretoria, and Mr. Ritson saw them entrained and afterwards left with the wounded. Most of the inhabitants were transported to Pretoria as prisoners, and Mr. Ritson heard that when they arrived there the order was found to be a mistake and the people were ordered back—it was believed to Ladysmith—under a flag of truce. In the Boer camp Mr. Ritson was very kindly treated. Mr. Ritson and a Dr. Mate desired to proceed to Maritzburg, but were advised not to venture to Ladysmith lest they should not be able to get through the Boer lines, and General Joubert gave them a pass to Pretoria, where they got free tickets to Delagoa Bay.

DISPENSERS WANTED.—An official notification has been issued by the Royal Army Medical Corps to the effect that compounders of medicine are urgently required for service in South Africa. Candidates, who must be between twenty-one and thirty-five years of age, must hold the minor certificate, or have been practically employed in dispensing medicine for three years, and should have a certificate of character from the last employer. They will be enlisted for the term of the war. They will receive 3*s.* 6*d.* per day, free rations, kit, and passage to and from South Africa, and a gratuity of two months' pay at the end of the campaign, as well as any general gratuity which may be granted the troops.

WHAT WE ARE COMING TO.—Customer: "Have you any oleum lini?" Storekeeper (with dignity): "No! nowadays so many new medicines are invented that it is impossible to keep them all!"

Scientific Progress.

The Titration of Alkaloids.—M. E. Falières (*Comptes Rendus*, July 10, 1899), with a view to eliminating the usual personal error inseparable from the use of the ordinary indicators in the titration of alkaloidal solutions with acids, proposes the following end-reaction, which he claims to be exceedingly accurate. It is, he says, capable of use with all alkaloids. A solution of ammoniacal copper oxide (prepared by dissolving 10 grammes of copper sulphate in about 500 c.c. of water, adding ammonia solution until the precipitate is redissolved, and making up to 1 litre) is used. With this the end-point is indicated by the appearance of a precipitate of copper oxide which renders the solution very turbid. The method of operating suggested by the author is as follows:—Twenty cubic centimetres of decinormal sulphuric acid is added to the alkaloidal solution (which should not contain more than 0.1 gramme), the vessel is then placed upon a black surface, and ammoniacal solution is run in until a persistent turbidity is produced. The amount of copper solution used is proportional to the free acid present, and thus, when the copper solution is once standardised, the amount combined with the alkaloid can at once be calculated. According to Falières, this method can be used in such estimations as the total alkaloids of cinchona, as the colour of the extract makes no difference to the immediate appreciation of the end-reaction.

The Solanaceous Alkaloids.—An interesting paper on some of the alkaloids of the *Solanaceae* appear in the *Annalen* (1899, 309, 75) by Hesse, who is well known as one of the chief authorities on the subject. The most interesting points of the paper are as follows:—Absolutely pure atropine is optically inactive. Commercial atropine, although at first slightly optically active, after being kept for some time becomes quite inactive. The activity of the commercial sulphate is due to the presence of hyoscyamine sulphate, and this activity does not disappear on keeping the salt. Atropine, on account of the presence of some hyoscyamine, in the form of its gold salt, becomes more or less converted into hyoscyamine on keeping. Whilst hyoscyamine sulphate does not undergo any alteration in optical activity by keeping, the free base has been observed to alter by 2° after keeping for two years. The base hyoscyamine undergoes no alteration in precipitating it from its salts with alkaline carbonate, and then extracting with ether. By atropine the author understands an alkaloid which he first discovered in commercial scopolamine hydrobromide, and afterwards extracted from the root of *Scopolia atropoides*. Crystalline anhydrous atropine melts at 82° to 83°, and has the composition $C_{17}H_{23}NO_4$. By the action of dilute alkalis, atropine yields osine and atropic acid. Atropine and inactive scopolamine are identical. Hyoscyamine and atropine, yielding tropine and atropic acid on decomposition, are perfectly analogous to hyoscyamine and atropine, which yield osine and atropic acid. It is unnecessary to say more than that these views are not those of all workers on this group of bodies.

Aloes Reactions.—Henberger has revised the various reactions for aloes which are in use, and communicates the results to the Swiss pharmaceutical weekly, the *Apotheker Zeitung* reprinting the note (4 Z., No. 97, 735). This result shows that the different kinds of aloes can be identified by one of three reactions:—(1) Halogenide; (2) cyanogen; and (3) Borntrager's or the ammonia reaction. The solution of aloes employed is made by boiling 0.5 gramme of the sample in 50 c.c. of water, filtering, and diluting the filtrate to 500 c.c. with water. The first reaction is done by adding to 10 c.c. of the solution 1 c.c. of copper-sulphate solution (1:20), then $\frac{1}{2}$ to 1 c.c. sodium-chloride solution (1:3), and 1 to 2 c.c. of alcohol, slightly warming the mixture. The cyanogen reaction the same quantities of aloes and copper-sulphate solution are used, and 1 c.c. of cherry laurel water added. The following results were obtained with authentic samples of aloes:—

	Halogenide	Cyanogen
Curacao ...	Red in the cold, dark	Intense rose
Barbados ...	cherry-red on warm-	Violet
	ing ...	
Mocha... ..	Reddish ...	Colourless
Uganda ...	Colourless ...	Slightly rose
Socotrine, liquid ...	Colourless ...	Colourless
Socotrine, solid ...	Colourless ...	Colourless
Zanzibar ...	Colourless ...	Colourless
Cape, new ...	Yellowish, with rose tint ...	Colourless
Cape, old ...	Colourless ...	Colourless
Natal, new ...	Slightly rose after 5 minutes ...	Colourless
Natal, old ...	Slightly rose after 5 minutes ...	Colourless

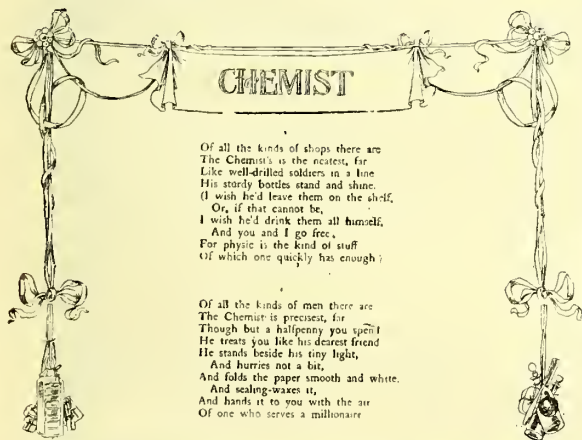
With Borntrager's reaction (adding ammonia to the aloes solution, and the same volume of ether, and shaking) Barbados aloes gives a cherry-red colour, the ether being yellow; Cape aloes becomes orange, then red, and the ether is colourless; and Natal aloes is yellow in the ammonia, and the ether red.

Christmas Windows.

WE referred last week to the charming picture-book for children ("The Book of Shops," published by Mr. Grant Richards, 9 Henrietta Street, Strand, at 6s.) which Mr. F. D. Bedford has drawn, and Mr. E. V. Lucas has



written the verses for. The pictures are produced in an artistic manner in water-colour facsimile. Through the courtesy of Mr. Grant Richards we reproduce the chemist's shop and the verses, which are as follows:—



This is a reduced facsimile of the page. The shop-front has a strange resemblance to several historic pharmacies which



might be mentioned, but the name of the chemist and the motley crowd forbid closer specification.

In contrast with Mr. Bedford's effort, we give a concrete example of window-decoration, designed by Mr. J. H. Wilson, pharmaceutical chemist, Harrogate, and carried out by him at the central pharmacy of his company in James Street, Harrogate. Mr. Wilson's note on the window is laconic, but sufficient. He writes:—"Left window—Three silver bells, shaded in blue, with red and white ribbons, perfumery caskets, sachets, &c. Right window—Three silver horse-shoes, shaded in blue, with red and white ribbons, hot-water bottles, lung-protectors, 'Eborazo' brand of liquorice, and ubiquitous 'Frog.'"

Pharmacy and Ethics.

A Christmas Dream.

ONE winter's afternoon, when snowy streets
Made customers retain till eventide
Their fleeting coppers, I, to pass the time,
Looked up old journals, there perchance to find
Some worthy matter I had overlooked
On hasty perusal. So I chanced
Upon a theme well suited to my mood—
On "Pharmacy and Ethics," written by
The pharmaceutical Nestor, whom the craft
Do well respect, the "Old Man Eloquent";
And as I read those thoughts Hyslopian,
In language more Hyslopian garmented,
There rose within me memory of words
Once sung by Whittier. Thus I think they run—
Thus with somewhat of the seer
Must the moral pioneer
From the future borrow,
Clothe the waste with dream of grain,
And on midnight sky of rain
Paint the golden morrow.
And with the singing of the Western poet
I fell a-musing, and then fell asleep
And dreamt that Man's Ideal had changed to Real;
And thus, methought, a fellow-craftsman sang:

SONG.

I possess a conscience clear.
What are carking care or fear
To a pillist proper?
I ne'er fib, nor advertise,
Nor prescribe, nor jeopardise
My soul for current copper.

I've a stock both rich and rare;
Every drug and chemic's there—
Much is lying latent;
But the cost I bravely face,
For you'll find upon the place
Not a single patent.

Though my pharmacy be nigh
Haunts of him with small glass eye,
Sung by Vesta Tilley,
Yet, beyond chaste scent or scap,
I sell nought that bears, I hope,
Taint of Piccadilly.

Summer comes and skies are clear,
Long-sought holidays draw near,
Banish care and sorrow.
To my friendly neighbour's store
Customers I then turn o'er:
Brighton on the morrow.

Though his price be less than mine,
Yet his morals are so fine
That I never worry;
For I know—

Here a sound of Earth
Broke in upon my dream, and the glad song
Gave place to rappings on the counter-case.
Lo! a customer. "Good sir, what lack you?"
He, with accents as of Sheffield, thus replied:
"Here's a prescription for four tannin suppositories, and the doctor says they'll be a ha'penny each."

New Companies & Company News.

RECKITT'S (AFRICA) (LIMITED).—Capital 10,000*l.*, in 10*l.* shares. Objects: To acquire the branch business of "Reckitt & Sons (Limited)," carried on at Cape Colony, and to manufacture and deal in starch, colours, blue, chemicals, soap, &c.

SAHLSTROMS (LIMITED).—Capital 25 000*l.*, in 1*l.* shares. Objects: To manufacture and deal in ozone and all electrodes and apparatus in relation thereto, and to carry on the business of chemical manufacturers, chemists, engineers, &c.

HULL AND DISTRICT AERATED WATER COMPANY (LIMITED).—Capital 2,500*l.*, in 1*l.* shares. Objects: To acquire the business carried on at Hull by J. L. Gordon, and to carry on the business of mineral-water manufacturers, chemists, druggists, &c. The first directors are J. L. Gordon and Mrs. E. L. Gordon. Registered office, 108 Holderness Road, Hull.

PORT SAID SALT ASSOCIATION (LIMITED).—Capital 45,000*l.*, in 1*l.* shares. Objects: To acquire a concession granted by the Egyptian Government for the working of salines at Port Said, and to carry on the business of miners, quarriers, chemists, druggists, drysalts, &c. The subscribers are to appoint the first directors. Qualification 100*l.* Remuneration not more than 4,000*l.* per annum.

HOVENDEN & SONS (LIMITED).—Capital 200,000*l.*, in 10*l.* shares. Objects: To acquire the business carried on at 93-95 City Road and elsewhere in London by R. Hovenden, A. Hovenden, and R. G. Hovenden, and to carry on the business of hairdressers' sundriesmen, perfumers, patent medicine vendors, soap manufacturers, &c. The first directors are R. Hovenden, A. Hovenden and R. G. Hovenden. Qualification 100*l.* ordinary shares. Remuneration 400*l.* each per annum.

R. I. BATEMAN & CO. (LIMITED).—Capital 10,000*l.*, in 5*l.* shares. Objects: To acquire the business carried on at Mill Street East, Savile Town, Thornhill, near Dewsbury, as "Robert I. Bateman & Co.," and to carry on the business of chemical manufacturers and merchants, drysalts, salt-cake importers, and manufacturers of and dealers in sal ammoniac, muriate of ammonia, nitric, hydrochloric, and other acids, dyers' materials, &c. The first directors are R. Waddington, (chemist), J. Sowden, R. I. Bateman (managing director), and G. Bateman. Qualification 500*l.* Remuneration as fixed by the company.

TRADERS (LIMITED).—Capital 1,000*l.*, in 1*l.* shares. Objects: To carry on the business (inter alia) of chemists and druggists. The subscribers are:—H. P. Green, gentleman, and Mrs. J. M. Green, Rothesay, Chester Road, Erdington; S. J. A. Cotterell, 63 Frederick Road, Aston, Birmingham, gentleman; W. Robertson, 13 Albert Road, Aston, gentleman; F. W. Holland, 26 Legge Street, Birmingham, bookseller; Miss E. B. Cotterell, 103 High Street, Harborne; and E. Drakeley, 174 Colmore Row, Birmingham, stockbroker. P. H. Cotterell is the permanent governing director with 200*l.* per annum.

THE LODAJA CINCHONA CULTIVATION COMPANY, of Java has declared a dividend for 1898-99 of 11 $\frac{3}{4}$ per cent. for the year.

BREEZE, JACKSON & GREEN (LIMITED).—At the first or statutory meeting of this company, at the offices of the company, Plymouth—Mr. George Breeze, J.P., presiding—it was reported that the whole of the ordinary shares had been allotted, and of the present issue of preference shares only 300 were still unapplied for.

H. W. CARTER & CO. (LIMITED).—The directors report the profit for the 13 $\frac{1}{2}$ months ending October 31 to be 5,968*l.* 19*s.* 3*d.*, and after deducting directors' fees, interest on purchase-money and debentures, dividend on preference shares, and income-tax, 4 090*l.* 12*s.* 10*d.* remains for dividend, which they recommend at the rate of 10 per cent. on the ordinary shares. This absorbs scarcely half the amount, the formation expenses (354*l.* 12*s.* 0*d.*) being written off, and 2,000*l.* placed to reserve.

LENNON (LIMITED).—The first annual general meeting of the shareholders of this company was held at the Cape Town

office on November 23, Mr. A. Walsh (the resident director at Port Elizabeth) in the chair. The directors' and auditors' reports, balance-sheet, and profit-and-loss account were submitted, and a dividend was declared of 15*s.* per share (equal to 7 $\frac{1}{2}$ per cent.) on the ordinary shares, payable on December 1, 1899. Mr. J. H. Bell was elected to a seat on the board of directors, and Messrs. Hands & Shore were re-appointed auditors.

Camwal Reconstruction.

ON Tuesday, December 19, the shareholders of the Chemists' Aerated and Mineral Waters Association (Limited) met in Anderton's Hotel, Fleet Street, E.C., to celebrate the majority of the concern, and to launch it forth into a vigorous manhood with a shorter name and longer purse. But before they came on the scene the staff of the Association paid a personal compliment to the Chairman,

MR. HORACE DAVENPORT,

in such a pretty, informal way, and so quietly, as to testify how affectionate are the relations between Mr. Davenport and his co-workers. He had just come into the large hall where the meeting was to be held forty minutes later, and passed the compliments of the day to the dozen or so members of the staff present, when Mr. H. T. Butler, Secretary of the Association, said, "Mr. Davenport, I am asked by 197 of the staff and employes of Camwal to carry out one of the pleasantest duties which I have ever had to perform. We ask you, sir, to accept from us this address and pieces of silver." Here Mr. Pirie, the manager, and another member of the staff uncovered a magnificent illuminated address and solid silver tea and-coffee service. The address was in the following terms, and was read by Mr. Butler:—

To Horace Davenport, Esq.

We, the undersigned staff and employes, beg to offer you our most sincere and heartfelt congratulations on the completion of your twenty-one years' chairmanship of the Chemists' Aerated and Mineral Waters Association, which Association is proposed to be reconstructed under the name of Camwal (Limited). We tender our warmest thanks for all your unvaried thoughtfulness and kindness to each and every one of us, substantial examples of which can be seen in the extended holidays and in the splendid bonuses granted yearly; and knowing that you have our interests so well at heart, you may be perfectly sure we shall, as in the past, continue to study the welfare of the Association in carrying out our duties steadfastly and honestly.

Those of us who have had the honour to serve for many years under your chairmanship know how earnestly and ably you have worked for the Association, and how in the earlier years when stormy weather was encountered you, like a true captain, stood by your ship and guided it safely through all perils.

In commemoration of your having attained your majority as chairman, we beg your acceptance of this illuminated address and a silver service as a slight token of our appreciation of your past kindnesses, and we sincerely hope that you may for many years to come be spared to occupy the chair which you now fill to such great advantage to the Association.

The address was signed by representative members of the staff, and in a morocco-bound book the whole of the names of the subscribers were given in branch order. Continuing, Mr. Butler asked Mr. Davenport to accept the address and silver, with the best wishes of the subscribers.

Mr. Davenport was greatly surprised, and in thanking Mr. Butler and his colleagues, remarked that his breath had been so taken away by the unexpectedness of their kindly action that he did not know exactly how to thank them. Their gifts were exceedingly handsome, but the good feeling which had prompted them was much more valuable to him. He was glad to think that, although he had been to some extent their "boss," there had never been any kind of unpleasantness between them; in fact, the good feeling existing amongst Camwal employes was proverbial. It was absolutely true that he had taken great interest in their welfare, and it was a source of pleasure to him to think the bonus system which they had instituted was more appreciated than an actual agreement. They had had differences—hundreds of them—but never any unpleasantness. He was pleased indeed to note these differences; they showed that

the Camwal staff had individually minds of their own. Perfect unanimity seemed to show that one man was "bossing the show" and the others were falling in, which was bad for any business. He was satisfied that these differences of policy had been a source of strength to Camwal. He was sure the new step which the directors proposed taking was in the right direction, and that meeting of the employes seemed to prove to him that it was so. The gifts he would look upon as heirlooms, and he would never look at them without feeling grateful for the confidence and kindly feeling which they represented.

The members of the little party then individually congratulated Mr. Davenport.

THE ANNUAL MEETING,

over which Mr. Davenport presided, was more fully attended than usual. In his opening remarks the Chairman, referring to the reminder which he had received of the "coming of age" of the company, said that he was glad to think that although he had in a measure been "boss of the show" for that period of time he had not made himself objectionable, and expressed keen gratification at the noble manner in which he had been treated by the employes. With regard to the report he intimated that the directors, with a view to having a respectable-looking frontage to their factory in Manchester, had erected a row of shops which in time they confidently anticipated would pay them a very fair interest for the money invested. A sum of 5,000*l.*, which had accrued during the year from increase of mortgages, the directors had used to pay off a loan from the bank. During the year they had issued more shares at a premium, which had been used to wipe off preliminary expenses in connection with their new factories. The increase in business during the past year was not only due to the good weather but a natural growth which they felt sure would continue. There appeared to be a growing idea even amongst shareholders that Camwal syphons could be filled by the members themselves, or by a local manufacturer. People who did this did not consider, evidently, that they were infringing the Camwal trade-mark and doing a vast injury to the company and to themselves. To such a pitch had this custom become prevalent that the directors had reluctantly resolved that prompt legal action should be taken even against shareholders who persist in filling or having Camwal syphons filled, or in selling them after they are filled. Such methods, he said, were not only grossly unfair to Camwal, and to other members, but also tended in many cases to bring Camwal waters into disrepute. He proposed that the report and accounts be accepted.

Mr. Nicholls, in seconding, endorsed the remarks of the Chairman with regard to the filling of syphons.

Attention was drawn by Mr. Everett to the amount (53,225*l.*) which appeared on the balance-sheet for "syphons, &c., in stock," and "syphons, &c., on loan." He thought that was an abnormally large amount, but the Chairman pointed out that the sum did not really represent all their syphons, and if the complainant would divide that by nearly 5,000 (the company's membership) and reckon it out at 2*s.* a syphon, he would not find it out of the way. At any rate, the directors wanted to see that item at least doubled.

The reports and accounts having been unanimously adopted, and the dividend proposed likewise agreed to, the Chairman next referred to the annual sum of 50*l.* which was usually voted to the directors, and which they presented to the Pharmaceutical Benevolent Fund. The directors, he said, would this year be content with the usual fees without addition, as many of their employes were reservists, and the directors were keeping their situations open for these men, and also paying (during their absence) their wives a sum equal to that allowed by the Government. They might want a large sum to meet this benevolence during the year, and the shareholders agreed that that was a wise reserve.

The retiring directors, Messrs. H. Davenport and A. Gould, were re-elected by acclamation, and so were the auditors.

THE EXTRAORDINARY GENERAL MEETING

was called for 3.30, but the annual business had been so quickly disposed of that there was time between for a cigar, which, by the consent of the one lady shareholder present,

most of the gentlemen indulged in. By this time many more had dropped in. We gave particulars of the reconstruction scheme in our last issue. Briefly, it means writing up the capital in shares, debentures, &c. (total, 88,843*l.*) to 250,000*l.*, and issuing 167,968 pound shares, of which all but 64,258 will be given to the present holders of shares (each 1*l.* share in the old company being exchanged for 2*l.* 10*s.* worth in the new).

Mr. Davenport, in putting the scheme before the meeting, urged the opinions of the directors in such an earnest and business-like manner that opposition, if it existed, was disarmed. He felt somewhat diffident, he said, in bringing the matter before them, because he was aware that many members were at a loss to know why they wished the reconstruction of the company when it was doing so well. There were many reasons, however, some of which it were better, for trade-purposes, to keep to themselves. The original company was, he believed, conducted with a memorandum of association perhaps the narrowest ever drawn, and the directors had frequently been hampered by it. First of all, he stated emphatically that it was not their intention to alter the trading conditions of the business. Camwal waters would still be supplied to and through chemists and certainly not in opposition to them. He thought there was proof of considerable confidence in the directors in regard to the question when they took into account that only twelve letters had been received from nearly 5,000 members, and only two-thirds of that number had been antagonistic to the scheme. The chief objection urged was against their supplying hotels. He wanted it clearly understood that it was not the intention of the directors to supply their waters to anyone who could be supplied by a chemist. The directors had often been applied to in the past to supply their waters direct to such places, but, according to their rules of association, all they could do was to arrange for a supply through a local chemist, a proceeding which many hotels and large institutions decidedly objected to, as they wished to deal direct. Besides, even if arranged to provide the supply, there was in many cases considerable difficulty in getting a local chemist to take up the agency. The vast majority of chemists have no surplus capital to carry on that sort of business, and refuse to accept the responsibility. Many chemists themselves had asked the directors to take over these responsibilities, but again their rules forbade them doing so. Under the new regulations these disabilities would be removed, and the new company would give commissions to chemists who secured such orders. The directors had no intention of harming the chemist in any way, nor did they wish to make Camwal an ordinary mineral-water business; but he did not see why they should be debarred from supplying first-class restaurants. He also mentioned that they would have a chance of developing their bottle-trade, especially for export. They had had opportunities of getting that, and had to refuse them because exporters would not place their orders through a chemist. There was no reason either why they should not cater for the steamboat trade. Chemists might obtain orders for all these, pass them on to the company, and get their commission. Golf-clubs were also instanced by Mr. Davenport as suitable receptacles for the supply of Camwal waters, either through a chemist or directly from the company. He then spoke of the trouble which wholesalers find at present in obtaining such simple things as Camwal syphon-coolers or Camwal syrups for their customers, and concluded with a reference to the good which would accrue if they were in a position to take up agencies for foreign waters, and if the directors had more powers generally to use their discretion as to whom they might supply. He then proposed the first resolution, which appointed Henry Thomas Butler, Secretary, as liquidator, and which Mr. Urwick seconded.

Mr. Nichols inquired whether any risk would be entailed in undertaking agencies for foreign waters. The Chairman replied that there would be none. Mr. Young (Barnet) wanted a definition of a "public institution," which the Chairman had spoken of as likely purchasers of Camwal waters. Would workmen's clubs come under that category? He would object to that; and it seemed for a few moments that Mr. Young had touched a big difficulty, when Mr. Urwick in his best forensic manner relieved the tension by saying that "a public institution was an institution governed

by a public body." This satisfied everybody. Mr. Walleck next called the attention of the meeting to the enormous amount they were putting in the Secretary's hands, and asked if any guarantee could be given of the expense of the reconstruction. "Something under 1,500%," was the Chairman's reply. "But where is your Secretary's guarantee?" again asked Mr. Walleck, who now got all the authority of law with the explanation from the Solicitor that the whole thing was a mere formality. Mr. Butler was their Secretary, and was desirous of being the new company's Secretary. The expenses were out-of-pocket fees to Government. Again Mr. Urwick's sage counsel soothed the meeting. "Mr. Butler will be in the position of a trustee," said he, "and I can assure you, from personal experience, that that is a very serious responsibility, closely hedged in by law. We have the utmost confidence in our Secretary, and that he will do right." Whereat every man took out his cigar to say "Hear, hear."

The second and third resolutions dealt with the registration of the new company, "Camwal (Limited)," and for the sale of the business to such company, and were agreed to *nem. con.*, an epitome of the draft-agreement being read by the Chairman. Thanks to the Chairman were proposed by Mr. J. H. Wilson (Harrogate), who congratulated the company particularly on having got rid of their cumbersome title, which was a stumbling-block to many, and on the probability of their obtaining a Stock Exchange quotation for their shares. Mr. Nichols seconded, with much satisfaction, the reconstruction of the company, which was a thing he had longed for for years. Mr. Davenport having briefly replied, thanks were awarded to the staff on the motion of Mr. Urwick, and a brief but manly reply was given by Mr. Butler.

Gazette.

THE BANKRUPTCY ACTS, 1883 AND 1890.

RECEIVING ORDER.

Darrell, Harrington Wyndham, doctor of medicine.

ADJUDICATION.

Hornsey, John, Bourne, Lanes, chemist.

ORDER MADE ON APPLICATION FOR DISCHARGE.

Bannerman, Mark Alfred (sued and trading as M. Bannerman & Co.), late Leadenhall Street, E.C., sponge-merchant—application adjourned generally, with liberty to apply.

Bankruptcies and Failures.

Re EDWARD JAMES FRANCIS GARNER, 251 Netherfield Road North, Liverpool, late 53 Victoria Street, Douglas, Isle of Man, Chemist and Druggist.

THE public examination of this debtor was held and concluded at the Liverpool County Court last week, before Mr. Registrar Bellringer.

Re E. J. MUNRO, Fortrose, Chemist and Aërated-water Manufacturer.

THE trustee of the estate of this debtor has intimated that the assets have realised 271*l.* 17*s.* 9*d.* (including the amount received for the business, stock, and plant), and after paying preferential claims and the expenses of winding up, there remains 227*l.* 15*s.*, which suffices to pay a first and final dividend of 5*s.* in the pound.

Re SIDNEY BROWN, 31 Caffyn Street, Lambeth, Manufacturing Perfumer and Drug-packer.

THE first meeting of creditors was held at the London Bankruptcy Court on December 15, before Mr. E. L. Hough, senior Official Receiver. The debtor, who filed his own petition, has lodged accounts showing liabilities 1,722*l.* 6*s.* 5*d.* ranking against assets valued at 617*l.* 10*s.* 5*d.*, after allowing

22*l.* 8*s.* 4*d.* in respect of preferential claims. The Chairman reported that the debtor, having traded for about thirty years at 8 Blackfriars Road, removed to Caffyn Street in September 1897. He originally commenced with a capital of between 200*l.* and 300*l.* The usual books of accounts had been kept, and the banking-account had been closed during the previous month. A quarter's rent was due in respect of the Caffyn Street premises, and the household furniture at the debtor's residence in Aytoun Road, Stockwell, was stated to be the separate property of his wife. The failure was attributed to want of capital and falling-off in the business; also to the action of the landlord of the former premises in raising the rent, and consequent removal. A discussion ensued with regard to the realisation of the estate, and the meeting elected to leave it in the hands of the Official Receiver. The following are creditors in the estate:—

Unsecured.

	£	s.	d.
Allen, F. & Son, Poplar	16	13	9
Acme Stopper and Decoration Company, Birmingham	12	10	0
Barston, C. H., Blackfriars	17	10	0
Bell, R. & Co., Bromley-by-Bow	22	5	10
Bennett, W. J., Sevenoaks	75	0	0
Bevan, T. & Co., London	11	7	8
Beyaud, C. H., London	14	17	7
Brown, A. R., Clapham	90	0	0
Brown, Miss R. C., Peckham	60	0	0
Brown, Mrs. E., Stockwell	248	19	4
Brunner, Mond & Co., Northwich	13	14	7
Collis, J., London	31	10	0
Dawes, Mrs., Dover	132	0	0
Dunn, E. & J., Denmark Hill	17	18	0
Evans, Lescher & Webb, London	50	15	0
Fell & Briant, London	17	13	9
Gray's Inn Road Box Company, London	60	5	0
Gordon & Co., London	38	7	4
Hall & Beyington, London	10	15	7
Harris & Co., London	14	18	10
Howards & Sons, Stratford	52	9	3
Jessop & Co., London	204	5	7
Keeping, J., London	11	17	10
Lambert, C. & Co., London	144	2	7
Lawes, J. B., London	48	5	9
Nathan, A. E., London	13	1	5
Naumann, W., London	11	10	3
Smith, Dr., Blackfriars	23	0	0
Smith, F. L., Holloway	24	10	0
Starkey, R. W., London	25	10	0
Surrey Fullers' Earth Company, London	15	12	0
Taylor, Martin, Buckhurst Hill	13	10	0
Ulmann, J., London	10	1	7

Partly Secured.

	£	s.	d.
Blundell, Taylor & Co., London	26	12	3
Orrick, R., & Co., Hackney Wick	14	18	0

Hunting the Mosquitoes.

[Dr. Koch is at Ambarawa, Java, studying malaria. This place and Fijilatjap have very bad reputations for fever. Government doctors in various garrisons have orders to catch mosquitoes for Dr. Koch.]

Koch has settled down in Java land to find a febrifuge; I fancy these Dutch doctors find the joke exceeding huge, Trotting round the swamps malarious, laying in a buzzing stock Of the Javanese mosquito for the febrile Doctor Koch.

I have oft gone butterflying for the beetle in his lair: Even hunted "irritations" in my puppy's curly hair: But these pleasurable pastimes all must go into the shade, When compared to catching skeeters to find how fever's made.

In my mind's eye I can picture each Dutch doctor setting out For the hotbeds of the fever where the skeeters fly about: Having tended to their dying and interred their dead, *en bloc* They troop out to catch mosquitoes for the festive Doctor Koch.

Well! I fancy, if our Governmental medicos were told To undertake such duties, that they'd quickly quit the fold; That e'en though it were for science, they'd be likely thus to mock— "Go and catch your own mosquitoes, and be blowed to you, Old Cock."

—Singapore Free Press.

Observations and Reflections.

By XRAYSER

CHRISTENED "DOCTOR."—The parents of the nerve-tonic man who told Judge Parry last week that he called himself "Dr." not because he had the degree, but because he was christened "Doctor," must have been endowed with remarkable foresight. Possibly the nerve-tonic formula was a family heirloom. In that case the utility of the given name is apparent. But their christening-scheme suggests a pleasing method of upsetting social distinctions. I believe there is a circus proprietor who claims to have been christened "Lord George," and who so designates himself. But what would become of our county families and our old nobility if the proletariat generally should choose "Sir William," "Marquis of," and "Lady Emily" as the usual Christian names of their offspring? "Judge" or even "Lord Justice" might be selected without infringing any known statute; but could the administrators of the Pharmacy Act obtain a decree to annul the christening of an unqualified baby for whom the name "Chemist" had been selected? If not, this process offers a means of infringing the Act simpler even than that of registering at Somerset House.

THE NEW CAMWAL DEPARTURE has excited much interest among the shareholders of the company. I am writing this before the meeting of the shareholders, and I agree with the editorial regret expressed last week if Camwal should resolve to depart from the strictly pharmaceutical lines upon which it has been so successfully worked. But I scarcely see that the directors' preposal necessarily involves the abandonment of the original idea of their enterprise. The supply of aerated waters to hotels and public institutions, from which the company is now practically barred—for these customers will not as a rule buy from second hands—is a very extensive one, and with some five thousand interested agents throughout the country the company ought to secure a fair share of it. Provisions to allow of this extension of direct trading might surely be made with sufficient precautions against the admission of competing retailers, and it is difficult to see how, in that case, the shareholders could be injured.

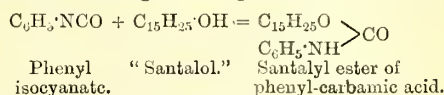
CORNER FOR STUDENTS.—The phenomenal success of the Analytical Tournament now proceeding among the student readers of THE CHEMIST AND DRUGGIST can hardly fail to strike the attentive observer of pharmaceutical progress. I note that for the competition reported on in November no fewer than 140 samples were sent out, and that 82 reports were sent in; and that for the one reported on last week, the samples applied for numbered 142, and the reports returned 75. The work involved in these competitions is not such as can be scamped through in an hour or two. It means for many of the students the sacrifice of the leisure of several days a month. It speaks volumes for the future of British pharmacy that over a hundred apprentices and assistants can be found to engage in work of this character. The writers and speakers who are so fluent about the professional status of pharmacy do precious little, so far as I can see, to promote it. THE CHEMIST AND DRUGGIST in establishing and maintaining this Corner for Students has done more in this direction than all of them put together. The future of pharmacy as a profession depends largely, in my opinion, on its association with analytical chemistry, and there must be at this time some hundreds of British and Irish pharmacists who have had the benefit of Mr. Moss's counsels, criticisms, and comments on their work; and anyone who reads these any month can appreciate what valuable instruction and encouragement are conveyed in his pithy sentences.

THE CHEMISTS' AND DRUGGISTS' DIARY FOR 1900 is fuller of meat than it ever has been before. I do not propose at present to comment on the literary contents, for I confess I have as yet scarcely mastered them. There is evidently money in that optical treatise, but it is a stiff piece of country to get over for one whose mathematics creak on their hinges as mine do. But (lest anyone should overlook them) I want to allude to the advertisements. They are a wonderful collection. On many of them much labour and skill has been expended, not to mention money. I have lately spent an evening over them noting many things—I hope, for my future profit. As a matter of curiosity, I took pencil and paper and roughly classified the nearly five hundred pages of advertisements as follows:—There are just about 100 pages of pharmaceutical specialities including some 8 pages of coated pills. The wholesale drug-trade proper, including all advertisements of staple drugs, contributes 40 pages; manufacturing chemists not otherwise classified employ 34 pages; there are 33 pages devoted to perfumery and toilet preparations, 33 to mineral waters, natural and artificial, and the adjuncts of that trade; 29 to oils, paints, colours, and household requisites; 28 to shop-fittings, including plant, machinery, &c.; and 15 to bottles, boxes, and corks. Surgical dressings, plasters, appliances, and instruments occupy 25 pages; proprietary medicines, 19; proprietary foods, including cocoa, &c., 13. The veterinary trade requires 12, wines and spirits 11, temperance beverages 3, photography 10, confectionery 8, optics 5, homoeopathy 4; and under druggists' sundries I have figured 42 pages, including 8 of sponges, 6 of brushes, and 4 of feeding-bottles. Educational announcements fill 11 pages, and those concerning printing and advertising take up 10 more. The most striking observation which occurs to me from a consideration of these figures is the evidence they afford of the development and prosperity of the business in pharmaceutical products and specialities. Ninety per cent. of this business is the creation of the last quarter of a century, and the advertising section of this DIARY seems to testify that they are by a long way ahead of all other products competing for pharmaceutical favour.

The Chemistry of Santal-wood Oil.

By E. J. PARRY, B.Sc.

THE question as to whether the alcoholic constituent of santal-wood oil, usually known as santalol, is a single compound or a mixture has been occupying my attention for some time. Quite recently Schimmel and Soden have both shown that it is probable that more than one isomeric alcohol is present, a result quite in accord with my own work, but in support of which none of us have yet produced positive evidence. I have now succeeded in preparing a well-defined crystalline compound of santalol (or one of its constituents) which will probably enable me to prove definitely whether this body is a mixture or not. This crystalline compound is the santalyl ester of phenyl-carbamic acid, formed according to the equation—



The body forms beautiful white needles, melting at the very high temperature 237° (uncorrected), and I am now investigating the reaction, in order to see if an isomeric ester is formed at the same time, and hope to report upon the results at the next meeting of the British Pharmaceutical Conference.

* "SANITAS" *

EMBROICATION

In bottles to retail at

8d., 1/-, and 2/6.

"SANITAS"

AND OTHER

DISINFECTANTS

SULPHUR FUMIGATING CANDLES (Kingzett's Patents)

6d., 9d., and 1/- each.

PRESERVED PEROXIDE OF HYDROGEN
(Kingzett's Patent).

MOTH PAPER, BLOCKS AND CRYSTALS.

WEED DESTROYER, &c., &c.

THE SANITAS CO., LIMITED, BETHNAL GREEN, LONDON.

AND 636-642 W. 55 STREET, NEW YORK.

KOLA-ASTIER

(GRANULATED).

Contains all the active principles of the Kola Nut, Caffeine, Theobromine, Kola Red and Tannin in a soluble, agreeable, and portable form. Recommended as a powerful stimulant of the physical and mental forces. Retail 3/6 per bottle; Wholesale 34/- per dozen.

WILCOX & Co.

83 Mortimer St., Gt. Portland St., W.

Wholesale Importers and Exporters of all

FRENCH AND GERMAN

Specialities and

PROPRIETARY MEDICINES.

Goods not in Stock procured to order.

"HIPI."

Can be obtained from all Chemists,
Grocers, &c., in 4-oz. Tins,
price 1s.

A PURE MUTTON ESSENCE

Can be
obtained from all
Chemists, Grocers, &c., in 4-oz.
Tins, price 1s.

SOLD WHOLESALE BY

GEO. NELSON, DALE & CO., Ltd.

14 DOWGATE HILL, LONDON, E.C.

PUREST IN ENGLAND.

BOURNE

SODA, SELTZER,
LITHIA, POTASH, LEMONADE
GINGER ALE, &c.

Supplied in Six Dozen
Cases,
Carriage Paid, by

TABLE

Analysis, &c., on
Application.

R. M. MILLS & CO.,

BOURNE,

LINCOLNSHIRE.

WATERS

West End Agents, WHEATLEY & SONS, 24 South Audley Street, W.
And of all Chemists, Wine Merchants, Hotels, &c.

Vibrona

Descriptive Literature,
handsome show cards and
window transparencies,
free on application to

Fletcher, Fletcher & Co. Ltd. London & Sydney

Editorial Comments.

Reciprocity.

THE discussion on reciprocity at the meeting of the General Medical Council serves to call attention to a principle which the medical law embodies, but which is not provided in any of the Pharmacy Acts of the United Kingdom. We mean the power given to the Medical Council for the registration of practitioners who have obtained their qualifications in British dependencies or foreign countries which accept the qualifications of the United Kingdom in lieu of their own. There can be no question that this scheme of medical reciprocity has been of immense value to the medical institutions in this country, because it has enabled many of our colonial and Indian citizens to come here in order to obtain the home qualifications, and go back to their places of origin to practise without further examination. Hundreds of men do this yearly, and, besides, many home-born and home-trained medical men leave the old country to settle down as practitioners in other parts of the Empire. The only argument that we can discover against this scheme of reciprocity is that the advantages are almost wholly on our side, for while hundreds of our qualifications have been accepted in other parts of the Empire, a trifling number of colonial and Indian practitioners come to this country to take advantage of the provision. Thus, in the Medical Register, which extends to 1,756 pages, three pages only are required for the colonial list, and only twenty-five of the ninety odd practitioners so registered practise in Great Britain, or have British addresses, the rest retaining their original addresses.

Applying this to pharmacy, can any better reply be given to the argument which has sometimes been used by pharmaceutical authorities at home against the proposals for reciprocity of pharmaceutical qualifications? This is a matter in which the Council of the Pharmaceutical Society of Great Britain has shown singular lack of enterprise. One can conceive of nothing more beneficial to the Society than that its certificates should be sought for by pharmacists in other parts of the Empire, and the peculiar position of this Society as the mother of our pharmaceutical organisations gives it advantage and influence difficult to compute. Yet it remains insular in all its dealings. It has never, as an examining body, fully realised its duty to its constituents. It is, perhaps, unfortunate that the 1863 Act did not create a Board of Pharmacy, instead of entrusting its administration to the Pharmaceutical Society, which had interests of its own, for colonial experience in that direction, as well as the example which we have in the General Medical Council, shows that statutory powers are better exercised by independent bodies. This has also been excellently shown by the independence of our Boards of Examiners, and there can be little doubt that purely executive bodies administer Pharmacy Acts much more effectively when they are not concerned with Society business. Our British Pharmaceutical Council has never got rid of the pre-1863 idea that its co-

stituents are the subscribers to the Society only—a circumstance for which there is some excuse, but which has, nevertheless, been a powerful deterrent to its development as the central pharmaceutical authority of the British Empire. It cannot be said that it is either in sympathy or in touch with the many British pharmaceutical bodies, although, as the authority administering the Pharmacy Act of 1868, it might have been. It will be observed from page 212 of *THE CHEMISTS' AND DRUGGISTS' DIARY* for 1900 that the Poison and Pharmacy Acts or Regulations in force in Ireland and Greater Britain are based upon the Pharmacy Act of 1868. This is a fact of significant importance, and one which it is not yet too late for the British Society to take into consideration. It may be especially noticed that in the older colonies pharmaceutical leaders have endeavoured to supply what the 1868 Pharmacy Act lacks—viz., means of regulating education. This is the case in Canada and Australasia, and, although not general in the latter, the tendency of Australian pharmaceutical reform is to raise the qualification by extending the period of training rather than by stiffening the examination.

The Council of the Irish Society appears to be quite alive to the importance of pharmaceutical reciprocity. We cannot say this of the British Council, because on several occasions it has been approached, particularly by Canada and Victoria, to do something in promoting the scheme, but the reply has always been that the Council has no power under the Pharmacy Act to do anything of the kind. At the present time the subject is being fervently discussed in the different Australasian colonies, but, although they may agree amongst themselves to recognise each other's certificates, they are not likely to influence the home authorities unless they get their Agents-General to move in the matter. Meanwhile, we call attention to the fact that the President of the Pharmaceutical Society of New South Wales has been given a fair hearing by the Irish Society, and the private conference which took place between him and the Council of that body recently seems to give promise of a tie being at last formed between us and our kinsmen beyond the sea. New South Wales has declined to recognise either the British or Irish certificates until their certificates are recognised by our registering authorities. We understand that this is largely dictated by the feeling that what is good for medicine is good for pharmacy, and since the medical experience goes to show that reciprocity is not a back-stairs way to qualification, we trust that our home authorities will look into the matter for the sake of that Imperial spirit which is so beneficial to our Nation's interests.

Wholesale Prescriptions.

WE referred last week (page 989) to observations by the *British Medical Journal* on the decay of the art of prescription-writing and the tendency of medical practitioners to prescribe medicines of a proprietary character. The subject appears to have caught on, for in the *B.M.J.* of last week appears a letter signed by Messrs. Dinneford & Co., Hooper & Co., W. E. Lowe & Co., V. L. Fellows, G. Jolley & Co., A. Ralph Melhuish, R. L. Wigham, Godfrey & Cooke, Pope Roach & Son, Frank A. Rogers, and R. A. Potts—all West-end pharmacists—expressing concurrence with the journal's views, and trusting that "the medical profession will raise its voice against a system of medication detrimental to the interests of the public and faculty at large." Mr. Wright, Secretary of the Chemists' Assistants' Union, also sent the following resolution:—

That the Council of the Chemists' Assistants' Union fully endorses the opinion of the editor of the *British Medical Journal*

in denouncing the continued spread of prescribing private specialities instead of standard B.P. preparations, recently expressed in an article on "Wholesale Prescriptions" in the above journal.

The *Lancet* has something to say on the subject, too, but does not throw much fresh light on it, the more cogent remarks of our contemporary being:—

It is probable that the growth of the use of proprietary preparations by medical men was in the past fostered by the difficulty of remembering the pharmacopœial doses—a difficulty which was evaded by employing proprietary articles. Careful consideration of the current British Pharmacopœia will show that this hindrance to the employment of official preparations has to a large extent been removed, and that pharmacopœial drugs can now be prescribed with as much facility as proprietary articles. Whether the average dispensing chemist can compete with the wholesale manufacturer in rendering the results of his labour equally attractive in appearance scarcely concerns the prescriber. It can undoubtedly be done by a skillfully-trained pharmacist; it is for him to determine what profit accrues from the trouble involved. So far as the benefit of the patient is concerned, it appears to be the duty of the prescriber to order the remedy demanded by the nature of the complaint, and to indicate the form in which it is to be dispensed; and, provided that the drugs supplied by the chemist are of the pharmacopœial standard of purity, the prescriber should be perfectly indifferent as to whether the actual preparation sent to his patient is proprietary or official. A prescription which indicates the name of a maker is necessarily an advertisement.

This is rather lukewarm, but it is, we think, possible to exaggerate the evil and misinterpret its origin. For example, it is generally supposed that the prescribing of ready-made mixtures and the like is due to the push of manufacturing chemists, while, as a matter of fact, the demand for such preparations was created by medical practitioners themselves, especially by those who do their own dispensing. The reasons for the demand were the gradually-decreasing knowledge of practical pharmacy on the part of medical practitioners and the desire of those who do their own dispensing to get concentrated preparations which on dilution yield mixtures for the more common complaints. The demand for such preparations was discouraged in the first instance, and there are some wholesale houses who continue to set their faces against it. We have had a conversation this week with the manager of a first-class house which has made strong endeavours to discourage physicians from relying upon ready-made compound preparations and any other forms of medication that might be easily popularised; but they have been met everywhere with the request to make a nice mixture of this, that, and the other together, and if they did not do it some other firm would. That is the beginning of specialism in many cases, and we could give instances of pharmacopœial articles which have started in that way. There is another aspect of the matter to be considered—viz., how far does the Pharmacopœia meet the requirements of physicians? If standard B.P. preparations are not sufficient for them, as seems to be the case, the obvious solution of the problem is to give them more preparations ready for administration. We have in it purgative pills and powders, diaphoretic and hæmatinic mixtures, laxative and tonic syrups, all more or less old-fashioned, but there are few cough, stomachic, antidyseptic, and venereal mixtures, for all of which and many more there is a demand. Many enterprising retailers who are on good terms with prescribers succeed in satisfying their clients without much assistance from large manufacturers, but until the British Pharmacopœia or the B.P.C. Formulary meets the difficulty referred to by the *B.M.J.* private enterprise will have a free hand.

Medical Prospects and Practice.

At the present time chemists and druggists are not prone to think of the medical man's difficulties. Chemists have set before them so constantly, and chiefly by people who do not

know much about it, the security of the medical man in his titles, and his highly honourable, therefore impregnable, position owing to the exercise of the law which gives the Medical Council power to remove the names of objectionable characters from the register. These things the ethical pharmacist longs for, and the longing is tinged by thoughts of the profits which go with dispensing done by the medical profession (90 per cent. of medical practice is done in that way). Also, it is to be noted, when the winter session comes round streams of inaugural oratory, pure as crystal in its culture, ethical precepts, and strict etiquette, invite to an excursion into those realms of fancy which the successful practitioner describes to his future successors. The reality is worth seeing now and then, and we have had two fair examples of it from Dublin and Ashton-under-Lyne.

Dr. R. F. Tobin had to address the students of St. Vincent's Hospital, Dublin, the other week, and he endeavoured to present the truth to them with as little embellishment as it is possible for a witty Irishman to use. He told the students at the outset that the complexity of life, with its difficulties and interests, loomed like a distant cloud before them, and as money might be said to be its electricity he asked them to consider some of the social and economic problems that influence the payment of the profession. He considered that free trade in medicine would be a bad thing for the public, because the public have no means of estimating the value of the goods which the medical profession offered, and on matters medical their ignorance is only equalled by their gullibility. To prove this he recalled how uncles, aunts, and cousins lay down the law on difficult points in physiology, a subject in which perhaps many of those whom he addressed had, after much study, been plucked three or four times. The man in the street knows nothing about the inside of his watch and is careful to take it to a watchmaker when it gets out of order; and as to his own inside—why, he knows a great deal about it, and although all that he knows is wrong, that does not prevent him doing a little doctoring on his own account. The young medico must keep that sort of thing in mind when he goes forth to fill his place in the profession in which there are no vacancies and no booking. So, having selected the theatre (we are quoting Dr. Tobin's simile), the young practitioner must join the waiting crowd, and with steady pressure hold his own, and when the door is opened put forward all that is in him to try to get a front seat. This obtained he might occupy it with complacency, and perhaps after a while turn round and ask, "Who are these fellows crushing behind?"

The first great problem in the practice of medicine is the necessity for keeping up appearances. The public can only gauge professional skill in an uncertain way, and consequently it is necessary to loom as large as possible in the public eye. The painter, the musician, the *littérateur*—even the pure scientist can live and dress as he likes: his work goes forth and speaks for itself. The shopkeeper has to advertise; but he cries up, as a rule, goods that are not his own handiwork, and for the medical practitioner is reserved the temptation—Dr. Tobin almost said the necessity—of crying up himself. Doctors may advertise by means of their hats, by the play of their facial muscles, by titles, equipages, mansions in fashionable squares, reports of cases, inaugural addresses, or in many like ways. Advertisement with the medical profession may be described as a keeping-up of appearances, and a doctor often cannot do better than put his money into his own business—first, by making himself as efficient as possible, and then by properly setting forth such efficiency, keeping strictly within the bounds prescribed by the wise men who have gone before. But it is one thing to soar high in the estimation of the

public and another thing to act up to it. And this, Dr. Tobin showed his hearers, was the most ticklish part of all. "Life," it has been said, "is one long compromise, and what we chiefly compromise is the truth." "Now, unhappily," said the doctor, "in the practice of medicine the truth at times requires careful handling. I have known a patient's pulse intermit one beat on every five in being told the truth, and I have known a rash use of that virtue cause a doctor's fee to intermit in an even greater degree." That fact constitutes a dangerous situation. The patient gains by the economy of the truth by which the physician also gains, and it is quite possible that what is begun in the patient's interest may be unwittingly continued in one's own. It seems, therefore, that doctors, if they value truth, must be particularly on their guard on those occasions when they feel themselves called upon to win a patient's confidence. In the first case they are called to they will probably find the patient expecting two things—a definite diagnosis and active treatment. The latter should wait upon the former; and as the lamp of science, much as it had been trimmed of late, does not yet burn brightly, while the man of science is anxiously and slowly trying to find his way to the light, the only thing he would clearly discern would be an expression of doubt on the faces of the patient and his friends as to the unhappy medico's competence.

Dr. Tobin also spoke about the question of fees, saying that a suitable fee should be fixed and rarely deviated from. In his opinion a graduated scale of fees introduces into the profession an element of trade which is disastrous alike to the patient and the doctor. This gives us the connecting-link with the Ashton-under-Lyne matter. There, the *Lancet* reports, a medical society has been formed the members of which pledge themselves to the following rules:—

1. No member shall solicit private practice either by advertisement, circular, card, placard, or by making payments or presents to nurses, midwives, or other persons.
2. No member shall be proprietor of, or in any way derive advantage from the sale of, any patent or secret specific.
3. No member shall give testimonials in favour of any patent or secret specific or in any way recommend its public use.
4. No member shall enter into a compact with a druggist to prescribe gratuitously and at the same time share in the profits arising from the sale of the medicine.
5. No member shall keep an open shop.

These rules sufficiently show the tone of the Society which works in a non-club and working-class district. The Society has drawn up a scale of fees, which is the point about it that particularly interests our readers. The following is the scale for the more common work:—

The ordinary visit is 1s., but medicine is charged for at the rate of 2s. 6d. for the 6-oz. to 8-oz. bottle and of 2s. for the 3-oz. to 4-oz. bottle; visits at night from 9 P.M. to 9 A.M. 2s. 6d., and advice without medicine 1s. 6d.; dressings 1s.; consultations with a practitioner 5s., with a consultant 10s. 6d.; and midwifery fees, if paid within the month, 15s., otherwise a guinea, and a guinea if the case is protracted or difficult.

This scale shows as well as anything could the hard lot of the English general practitioner. It cannot be gratifying to leaders of the profession to find the united wisdom of a local society valuing professional skill and knowledge at a shilling, and the adventitious part that emanates from the dispensary at half a crown. The dispensing charge is distinctly excessive; 6-oz. and 8-oz. mixtures in 1-oz. doses are charged only 1s. 2d. to 1s. 6d. by first-class chemists. The Ashton-under-Lyne charge may be influenced by the relative frequency of visits and physic, but, however that may be, it seems clear that it would be to the advantage of doctors and patients if the medicine were supplied by the chemist. If the doctor gives patients medicine once every two visits, the lot costs the patient 5s.; but if the doctor permitted the chemist to dispense the medicine, he would

keep up his dignity and his fee, and the patient would save 6% to 10%, or from 10 to 17 per cent. on a course of treatment. That is an aspect of medical practice which is rarely brought so forcibly before us, and it is worth fixing.

ONE SWALLOW MAKETH NOT A SUMMER.

The father of David was the High Priest of the Degenerates, and he and his brethren, although not of the Elect, waxed fat and were powerful in the land. Whereat the Elect grumbled sore and did naught. At length, goaded by the increasing fatness of the Degenerates and the word-lashings of various moving spirits, they gathered up their skirts and went out to seek a remedy. And as they wandered they cried with a loud voice that the Degenerates had filched their birthright, and they besought him who sat on the woolsack to compel the Degenerates to go to their places, and that seven of the Elect should come between them and the people. And while they cried the High Priest communed with his kindred, and took one of the Elect to his bosom, whereupon some said: "The degenerates do fear and tremble." "Not so," replied the High Priest, "this thing hath been my dream for years. It is a mere coincidence."

IT FOUND US.

We receive many things curiously addressed. A specimen copy of a scientific journal comes to us from Germany this week addressed thus:—

*Herrn Chemist and Druggist, Daniel Hamburg,
London.*

The late gifted pharmacographer appears to have been meant; probably the name appears on a canvassing list, next to CHEMIST AND DRUGGIST.

AITING.

Although the last word on the company question has not been spoken, we feel that with the meeting of London West-End chemists on Wednesday evening the present epoch of the controversy may safely be closed, especially as we are on the eve of important action in the matter. It now remains for the Pharmaceutical Council to take the opportunity which is offered to them, and to make the best bargain they possibly can for those who are entitled to look to them for protection—we mean registered chemists and druggists who have willingly met increasing demands for higher education in order that the public might be assured of the best qualification in retailers of poisons. The Government awaits the co-operation of the Council in the matter, and although it is doubtful whether qualified directorship or a known manager in each shop will, with the protection of title, be the ultimate *modus vivendi*, there is sufficient diversity of opinion on the Council to ensure that thorough representation of the most reasonable views will be presented to the Government.

THE PHARMACIST IN FICTION.

In our issue of October 14, page 649, Mr. James Reid drew attention to the slighting way in which pharmacy is spoken of by story-tellers who ought to know better, and now another correspondent sends us what he describes as a much worse instance. In Mr. F. Anstey's book "Vice-Versa," chapter 4, page 68, the following passage occurs:—

Very slowly and reluctantly Coggs brought out of one pocket after another several neat little white packets, made up with that lavish expenditure of time, string, and sealing-wax by which the struggling chemist seeks to reconcile the public mind to a charge of two hundred and fifty per cent. on cost price, and handed them to Doctor Grimstone.

Our correspondent hopes, after reading this, that we will forthwith open a subscription-list in order to raise a fund for the prosecution of the novelist. What do our readers think?

"THE ABSENT-MINDED CUTTER."

Our verses with the above title in our issue of December 9 were promptly copied by the *Grocer*. In a preliminary note the editor says:—

The *C. & D.* has modified Mr. Rudyard Kipling into some capital verses on "The Absent-minded Cutter." By substituting a word here and there, we, in turn, have modified him, as below, and our readers' approval will, we are quite sure, be sufficient apology to our smart contemporary.

The modifications are slight, and are only such as will point the moral more pungently to that enterprising journal's *clientèle*. A veteran correspondent informs us that "the parody is by far the finest that has appeared, and should be printed large and hung in every chemist and druggist's shop in the kingdom."

RECOGNITION OF A KIND.

It is passing strange how financial papers succeed in putting things the wrong way when they get past pounds, shillings, and pence, to technicalities. The following is the way in which the *Rialto* begins favourable comment upon Mr. Davis's speech to Parke's Drug-stores shareholders:—

Now that the principle of limited liability has been so largely recognised by the pharmaceutical fraternity, and we have our drug-store companies invading every important street in our big cities and extending their branches into every town of considerable population, it is interesting to study the effects of the movement.

"Reduction of prices" is, of course, the immediate effect, but recognition by the pharmaceutical fraternity has still to come, we fancy.

FUTURE PHARMACOPŒIAS.

At the last scientific meeting of the Philadelphia College of Pharmacy, Dr. Charles Rice, editor of the United States Pharmacopœia, read an able paper on some pharmacopœial problems which he advanced for consideration owing to the approaching revision of the Pharmacopœia. One of his ideas was that the word pharmacopœia will soon cease to be strictly applicable to the works now produced, as they are becoming less books of directions for making medicines than books prescriptive for, or descriptive of, medicines. The reason for that is, he said, that

exactng demands are made at the present day, under various laws, upon the quality of medicines dispensed by pharmacists, and it is not to be wondered at that the latter become more and more unwilling to assume full responsibility for the quality, and particularly the exact strength, of the preparations they dispense, but that they prefer to shift this responsibility upon the manufacturer, more especially when the latter assures them that he is willing to assume the responsibility himself. This matter of responsibility for the quality of medicines in combination with considerations of economy, particularly by the saving of time, space, labour, and wages, has brought it about that the manufacture of certain classes of pharmaceutical preparations is becoming more and more concentrated in the hands of large firms, and that the function of the pharmacist—at least of the conscientious pharmacist—is chiefly confined to an examination of the preparations which he buys by means of such tests as are available to him.

There is much truth in these remarks, and they are now felt in this country as well as in the United States. Dr. Rice, in the course of his paper, advocated the introduction of doses in the new U.S.P., the introduction of newer remedies of which the exact composition is known and can be determined, and that the principle of standardisation should be extended, but that no physiological tests should be introduced.

MR. HENRY JAMES BERRY (71, 24 Porchester Gardens, Bayswater, retired pharmaceutical chemist (formerly of Worthing), on December 14 was going down stairs, when he slipped and fell to the bottom, fracturing his skull. He died on Sunday. The facts transpired at the Coroner's inquest held on Wednesday.

Festivities.

WEST OF SCOTLAND COLLEGE OF PHARMACY.

The first annual dinner of this school was held in the Cockburn Hall, Glasgow, on December 14. The chair was occupied by Mr. T. Maben, F.C.S., one of the principals of the College, and he was supported by Dr. Thomson, Messrs. W. L. Currie, J. A. Russell, D. Watson, J. P. Gilmour, T. S. Barrie, and others. Messrs. Irvine and Carson officiated as croupiers, and upwards of sixty were present. After dinner and the loyal toasts, the Chairman, in proposing "The Pharmaceutical Society and the Glasgow and West of Scotland Association," referred to the work of the Society, and deprecated the discontinuing of the Preliminary examination by which the Society suffer a permanent loss of at least 500*l.* a year; but there would be an immediate, though, perhaps, temporary loss of 1,000*l.* additional, while the expense to the candidates would be largely increased. He also called attention to the fact that the examination would be the same in standard as the medical Preliminary, which was not to be raised, and spoke of the work done by the Glasgow Association.

Mr. Currie, in the course of his reply, agreed that it would have been better if the Society had left the Preliminary examination in their own hands. Spraking of the Glasgow Association, he said there were now two. The senior Association had not this year drawn up a regular programme of meetings, for they relied on the young men a good deal, and they did not want to multiply meetings and thus divide the interest. Mr. Maben had spoken of him as a future councillor, but, so far as he was concerned, there was little prospect of that.

Mr. J. P. Gilmour proposed "The Medical Profession," to which Dr. Thomson replied.

Mr. Anderson Russell proposed "Success to the West of Scotland College," and in doing so referred to the advantages students now enjoyed compared with the condition of things when he was a student.

Mr. T. S. Barrie replied, after which "The health of the Chairman" was toasted. During the evening several songs and recitations were contributed by Messrs. Currie, Irvine, Lochhead, and the Chairman.

C.A.A. SOCIAL.

The Chemists' Assistants' Association concluded the first half of the session in December 14 with a most successful "musical social." Mr. J. H. Matthews presided, and was supported by a small but appreciative audience. An excellent programme, consisting of songs by Messrs. H. B. Everson, Leckonby, Martin, and Dorolly, recitations by Mr. S. A. Walton, and flute-solos by Mr. E. J. Everson, were greatly enjoyed. The duties of accompanist were ably performed by Mr. A. H. Brady.

NEWCASTLE AND DISTRICT CHEMISTS' ASSOCIATION.

A smoking-concert in connection with this Association was held on December 13 at the Hotel Métropole, Newcastle-on-Tyne, Mr. C. Ridley (President) in the chair. An excellent and varied programme was gone through. The proceedings closed with a vote of thanks being accorded to the artistes and also to the President. A collection amounting to 2*l.* 4*s.* 7*d.* was made for the Reservists' Fund.

MANUAL OF PHARMACEUTICAL TESTING.—This little work, which is so valuable that not only the majority of pharmacists in Great Britain employ it daily as a practical laboratory-companion, but very many in the United States find similar use for it, has been revised to make it accord with the latest edition of the British Pharmacopœia which was issued a year ago. In other respects it differs little from the first edition, published in 1891, having, however, incorporated in it the substance of notes accumulated by the author during the interim. In addition, the editorial staff of THE CHEMIST AND DRUGGIST, who publish the work, have given the benefit of their researches and made numerous emendations, with the view of bringing it up to the requirements of the day. It is a thoroughly practical table-companion, and as such deserves the wide circulation it has attained.—*Pharmaceutical Era.*

Trade-Marks Applied for.

Anyone who objects to the registration of a trade-mark must address the Comptroller-General, Patent Office, Chancery Lane, W.C., within a month of the date of publication.

(From the "Trade Marks Journal," December 6, 1899.)

- Device of Christmas cracker; for chemical substances. By C. H. Collier & Co., 31 Major Street, Manchester. 226,271.
- Device of white umbrella and wording; for chemical substances. By Kerr, Tarruck & Co., 11 Clive Street, Calcutta.
- "NICOTICIDE," (no claim for "Nico"); for chemical substances. By W. A. and G. Maxwell & Co., 63 South John Street, Liverpool. 225,787.
- "CALASCO"; for chemical substances. By the Patent Borax Company (Limited), 194 Ledsam Street, Ladywood, Birmingham. 226,790.
- Portrait and signature of applicant; for chemical substances. By J. E. Coderre, 2,123 Notre Dame Street, Montreal. 225,531.
- "SANOCHINOL" (no claim for "Sano"); for medicine. By E. Langheld, Angerstrasse 23, Hamburg. 226,142.
- "RESALDOL"; for a pharmaceutical product. By F. Bayer & Co., König Strasse 27, Elberfeld, Germany. 226,771.
- "TRENOPHYTON"; for surgical trusses. By J. D. Day, 30 Fitzwilliam Square, Dublin. 226,493.
- Pictorial device (essential particular); for mineral and aerated waters. By W. Hay (Limited), 18 Anlaby Road, Hull. 225,402.
- Signature of applicant; for mineral and aerated waters. By J. F. Harrington, 45 Kensington High Street, W. 226,579.
- Signature of applicant; for aerated, &c., waters. By Blanche J. Nicole, 104 Holly Park Road, Friern Barnet. 226,670.
- "SCURFOPUS," wording, and emblematical design (the essential particulars are the combination devices and word "Scurfopus"); no claim for "Scurf"; for a scurf-pomade. By C. Dibben, 21 High Street, Maldon, Essex. 225,158.
- "EXCELIA" (no claim for "Excel"); for skin-tonic. By Loubette et Cie, 20 Grosvenor Park, London, S.E. 225,470.
- "CALASKO"; for perfumery and toilet-articles. By the Patent Borax Company (Limited), 194 Ledsam Street, Ladywood, Birmingham. 226,793.

(From the "Trade Marks Journal," December 13, 1899.)

- "BLUINE" (no claim for "Bluc"); for chemicals and oils. By G. A. Conant, 6 Chatham Row, Boston, U.S.A. 223,210, 223,211, 223,212.
- "LINOXYD" (no claim for "Oxide" or "Oxyd"); for chemicals and rubber-substitutes, &c. By Oxylin-Werke Actien-Gesellschaft, 7 Plagwitz Strasse, Leipsig. 225,579, 225,580, 225,581, 225,582, 225,583.
- Circular device, with firm's name and address in white letters on black ground; for synthetical indigo. By the Badische Anilin und Soda Fabrik, Ludwigshafen-on-Rhine. 226,464, 226,465.
- "ASSYRIAN BULL"; for silicates of soda and potash, disinfecting soap, glycerin and oils. By C. Thomas & Brothers (Limited), Bristol. 226,699, 226,700, 226,701, 226,702, 226,703.
- "ANTIVERM"; for veterinary medicines. By J. E. Shacklock, M.R.C.V.S., 69 Scotgate, Stamford. 225,302.
- Picture of a bull's head; for mustard and mustard oil for veterinary purposes. By J. & J. Colman, Norwich. 225,425.
- "EQUISAN" (no claim for "Equi"); for a veterinary skin-cure. Corry & Co. (Limited), 13 Finsbury Street, E.C. 226,542.
- Device (the essential particular) of label bearing picture of a rock in the ocean and wording; for a medicine. By the Boulder Cure Company, 48 Ponthill Road, Kirkdale, Liverpool. 224,840.
- "BORSYL" (no claim for "Bor"); for a medicated powder. By the Chomische Fabrik Dahme, 2 Tuckaner Chaussée, Dahme, near Berlin. 225,012.
- "OXO" (no claim for "Ox"); for chemicals. By Liebig's Extract of Meat Company (Limited), 9 Fenchurch Avenue, E.C. 225,286.
- "Antigermin," mentioned last week, is applied for by Messrs. Davies, Gibbins & Co., Derby, not by Mr. Ernst, who claims "Anusol."

Winter Session.

Advance notices of the meetings to be held are inserted under "Coming Events." Secretaries are requested to send such notices not later than Wednesdays of the weeks before the meetings are to be held.

Liverpool Chemists' Association.

A MEETING was held at the Royal Institution on December 14, Mr. A. S. Buck in the chair. The attendance was very thin owing to the bad weather. A paper by Messrs. R. C. Cowley and J. P. Catford was read, entitled

"LIQUOR BISMUTHI,

the essential conditions for ensuring its perfect, rapid, and economical preparation."

Having alluded to the formulæ for the liquor in the 1867 and 1885 Pharmacopœias, and the objections to the dry bismuth citrate of the latter, the authors referred to MacEwan's suggestion to use freshly precipitated citrate, and his formulæ based on that idea (*C. & D.*, 1886, i, page 17; "Pharmaceutical Formulas," page 528). The chief objection to this process is the loss of bismuth, which MacEwan stated to be about 3 per cent., but the authors find the loss to be much greater if ammonia is added in excess. The present B.P. formula appears quite simple, but in carrying out the directions it is often difficult to get the precipitate free from nitric acid, and when washed until free it does not completely dissolve in solution of ammonia. For this reason pharmacists still employ MacEwan's process or the dry bismuth citrate as ordered in the 1885 Pharmacopœia. From a considerable number of experiments the authors have determined that the best proportions are as follows:—(a) Sufficient of the citric radicle to combine with all the bismuth; (b) sufficient of a fixed alkali to combine with all the free nitric acid *plus* the nitric radicle in the bismuth oxynitrate (this does not apply where ammonia is used). Comparing this with the pharmacopœial formula, it will be seen that, curiously enough, the latter orders sufficient citric radicle to combine with the bismuth, provided the potassium citrate is 100 per cent. pure. The purity of this salt as given in the B.P. is 98 per cent., but actually in commerce the salt is often much less pure: one sample examined was just under 94 per cent. pure. The total amount of alkali is also insufficient to neutralise the nitric acid. Thus we have the conditions to produce an admixture of basic bismuth nitrate with the bismuth citrate, which will require at least a week's washing to wash it free from nitric acid, or, in other words, to wash out the nitric radicle from the basic bismuth nitrate. The authors having described the *rationale* of the process, proceeded to say that in MacEwan's formula 50 per cent. more nitric acid is employed than in the 1898 B.P. formula. This is not at all necessary; in fact, with the increased proportion of nitric acid, the amount of bismuth left in solution is much greater than when the smaller amount of acid is used.

After precipitating the bismuth citrate by strong alkali the thick cream should be diluted with *hot* water to the volume of the liquor it is about to produce. This is well cooled before transferring it to the filter. It will then be in a granular compact state holding comparatively little fluid. The filtrate will be bright, and will not deposit as it would if filtered whilst warm. Another advantage is that it does not require much water to free it from nitrates beyond that necessary to displace the original liquid. The whole of the filtrate should contain not more than 1 per cent. of the bismuth used. Equally successful results can be obtained by using the hydrate, carbonate, or bicarbonate of any fixed alkali. It is only necessary to know their real strength in comparison with the nitric acid used, and to use sufficient to decompose all the oxynitrate, but not so much as to render the liquid alkaline, or it would affect the bismuth citrate. To guard against this a slight excess of citric acid above the calculated quantity (48.3 grammes for 1 litre) should be used.

The next step is to dissolve the citrate in solution of

ammonia. An interesting point in the formation of the ammonio-citrate is that it does not require twice the number of ammonia molecules to dissolve the bismuth citrate, even allowing for slight alkaline reaction required by the Pharmacopœia: 50 c.c. of 10-per-cent. liquor ammoniæ is all that is necessary—i.e., 3 molecules to 2 molecules of the bismuth salt. The ammonia should be diluted with 4 volumes of water and poured on the contents of the filter. The Pharmacopœia allows for a loss of 6.5 per cent. of bismuth oxynitrate, but by the above process the loss is practically 1 per cent., so that the final liquid will bear dilution to 1,050 c.c. instead of 1 litre as the B.P. states.

The percentage of loss, calculated as oxynitrate in the filtrate, is as follows:—

MacEwan's process using 120 grammes molecules to 23 grammes molecules of $\text{BiO} \cdot \text{NO}_3$; 101 grammes molecules of NH_3 will make a clear solution with half; if no more be added an enormous loss of bismuth will result, even as much as 15 per cent. In practice doubtless an excess of ammonia is used: 126 grammes molecules will precipitate the maximum proportion leaving	6.3	per cent.
in solution	...	...
B.P. proportion of acid 80 to 23 (sp. gr. of liquor 1.070)	...	loss 5.6 "
Ditto, using NaOH	...	" 1.06 "
Ditto, " NaHCO_3 (sp. gr. of liquor 1.080)	...	" 0.72 "
Ditto, " KHCO_3	...	" 1.06 "

These determinations were all made as sulphide, therefore they are comparative only; lower results would be obtained if weighed as oxide.

The best working formula to prepare a litre of liquor bismuthi is the following:—

Bismuth oxynitrate	...	...	...	70 grammes
Nitric acid (sp. gr. 1.42)	...	...	...	50 c.c.
Distilled water, of each	...	...	...	50 grammes
Citric acid	...	...	...	...
Bicarbonate of potash, 103 grammes; or soda, 86.5 grammes; or solution of subcarbonate or hydrate, q.s. equivalent to 128 c.c. of the diluted nitric acid.*	...	...	...	...

Dissolve the bismuth in the diluted nitric acid by gently warming, add the citric acid dissolved in a little water (and if a carbonate is used two-thirds of it may be mixed with the citric acid); lastly, add gradually the alkali solution, stirring well; dilute with hot water to about a litre, cool, filter, wash free from nitrate. Pour on to the citrate 60 c.c. of liq. ammoniæ 10 per cent., diluted to 200 c.c. with water. Return ammoniacal filtrate until all the bismuth citrate is taken up; then dilute to a litre or to the required gravity, 1.070.

At the conclusion a vote of thanks was accorded to the authors, on the proposition of Mr. JOHN SMITH, seconded by Mr. PROSPER H. MARSDEN.

The CHAIRMAN, referring to the valuable character of the contribution, said it was a distinct step towards the perfection of a preparation which had been the cause of a large amount of trouble to pharmacists, and which had been productive of an equally large amount of literature. The authors seemed to have solved the difficulties besetting the preparation of the liquor, and in future chemists would be able to make it satisfactorily and easily for themselves.

Mr. JOHN SMITH drew attention to the use of hot solutions to cause the precipitated bismuth citrate to aggregate, and said the thanks of all pharmacists were due to Messrs. Cowley and Catford for a simple method of saving the long washing previously wanted by the citrate in the B.P. method before it could be said to be free from nitrates.

The brightness, freedom from colour, and absence of evident excess of ammonia in the exhibited samples made by the process were alluded to by Mr. PROSPER H. MARSDEN, who said that these specimens were far and away superior to the ordinary ones obtained from the trade sources.

* The bicarbonates may be weighed as pure, being fairly constant purity, but subcarbonates or hydrates, being variable in strength, are best made into solution 10 to 20 per cent. (soda crystals 30 per cent.), and titrated with the diluted acid. If 128 minims of the diluted nitric acid is neutralised by x minims of the alkali solution, then x c.c. of the alkali solution is required. If liq. ammoniæ be used, deduct one-tenth, or titrate with 115 minims of acid instead of 128 minims, or if a burette is used 11.5 c.c. instead of 12.8 c.c.

Midland Chemists' Assistants' Association.

A MEETING was held at the Exchange Rooms, Birmingham, on December 13, under the presidency of Mr. F. A. Spear, when Mr. JOHN BARCLAY, B.Sc., read a series of

LABORATORY NOTES.

Small Jaborandi-leaves as an Adulterant of Coca-leaves was the title of the first of these. A sample parcel of coca-leaves recently obtained from a London broker was found to consist of from 40 to 50 per cent. of small jaborandi-leaves mixed with Bolivian coca. The bulk of the adulterant leaves had the following characters:—From $\frac{5}{8}$ inch to $1\frac{1}{2}$ inch in length, from $\frac{3}{8}$ inch to 1 inch broad, margin entire, revolute, unequal at the base, without petiole, oval-oblong in shape. A smaller proportion of lanceolate leaves with short petioles, but in other respects similar, was also present, but the characters of the two varieties corresponded generally with those described by Holmes as belonging to *Pilocarpus microphyllus* and *P. spicatus* respectively. Both varieties may readily be distinguished from coca-leaves, the apex of which is quite different, and which possess the well-known curved line from base to apex at each side of the midrib. The leaves were extracted and pilocarpine obtained from them.

Aqueous Tincture of Opium of Commerce.—Some uncertainty as to the alkaloidal strength of this tincture appears to exist, and it was thought desirable to endeavour to clear up the matter by examining samples from seven wholesale houses and analysing them. The results were as follows:—

	Sp. gr.	Extractive	Alcohol by vol.	Morphine	Comparative Colour
No. 1 ...	0.986	3.10	20.71	0.681	17
No. 2 ...	0.985	3.22	21.19	0.778	14
No. 3 ...	0.989	4.28	21.19	0.700	17
No. 4 ...	0.998	5.09	17.17	0.967	19
No. 5 ...	0.968	3.48	38.04	0.781	20.5
No. 6 ...	0.983	2.54	22.18	0.381	19
No. 7 ...	0.976	4.24	32.98	0.739	23

Extractive, alcohol, and morphine are given in parts per cent. by volume. It will be seen that the majority of the samples approximated to the morphine strength of the B.P. tincture of opium (0.75 per cent.), and this percentage should be the recognised standard for the tincture. A mixture of 3 parts of water with 1 part of 90-per-cent. alcohol appears to be the menstruum most commonly used.

Loss of Strength in the Official Ethyl-nitrite Preparations.—In December of last year four 20-oz. stoppered bottles, filled respectively with (A) solution of ethyl nitrite, (B) spirit of nitrous ether with 10 grammes of bicarbonate of soda, (C) spirit of nitrous ether, (D) spirit of nitrous ether, were put aside for periodical examination of strength. Bottle D was placed in a cool, dark cellar. On each successive day for sixty days, 5 c.c. of liquid was removed from each of the bottles A, B, and C, and the strength ascertained by the official process. During the whole of the sixty days the bottles were kept on the laboratory shelves, the conditions being similar to those at the dispensing-counter. The results, in terms of volumes of nitric-oxide gas yielded by 100 c.c. of the liquids, were as follows:—

	A	B	C
December 14, 1st day ...	929.2	789.8	789.8
December 24, 10th day ...	862.3	743.2	721.9
January 3, 20th day ...	859.18	702.6	658.3
January 13, 30th day ...	843.9	656.3	597.9
January 23, 40th day ...	814.2	619.6	541.2
February 2, 50th day ...	804	563	498.1
February 12, 60th day ...	796	475.3	416.6

The sample D, originally of the same strength as B and C, was found at the end of sixty days' storage in a cool, dark cellar to have a strength corresponding to a yield of 730 c.c. per cent. of nitric-oxide gas, from which it appears (1) that the liq. ethyl. nit. keeps well, (2) that spt. æther. nit. in sixty days falls below the minimum B.P. requirements, (3) that a small quantity of alkaline carbonate slightly retards loss of strength, and (4) that spt. æther. nit. kept in full bottles in a cool, dark place diminishes little in strength.

Mr. Barclay expressed his indebtedness to Messrs. Mann and Barnes, for assistance given him in preparing the paper. After the reading of the paper an interesting discussion took place, in which the CHAIRMAN, Messrs. SELBY, BELL, JESSOP, and others took part.

Pharmaceutical Society of Great Britain.

NORTH BRITISH BRANCH.

AN evening meeting was held at 36 York Place, Edinburgh, on December 20, Mr. Peter Boa, Chairman of the Executive, presiding.

APPRECIATION.

The CHAIRMAN said he would like, before beginning the business, to refer to the loss which the Society had sustained in the death of Mr. Stanford, of Dalmaur. Most of the members, he said, would remember Mr. Stanford as President of the Pharmaceutical Conference which met in Edinburgh in 1892. Personally, he had frequently to meet him in connection with the Conference, and he did not think anyone could meet a more genial gentleman than Mr. Stanford. He was a pharmaceutical chemist and a life-member of the Society, and although he did not practise pharmacy he took a lively interest in pharmaceutical affairs—but for his death they would have had a paper from him at their evening meetings this session. He (the Chairman) thought they should record their regret at having lost so active a member of the Society in Scotland.

The meeting agreed to this, and authorised the Chairman and Secretary to send a letter of sympathy to Mrs. Stanford.

Mr. THOMAS DUNLOP, pharmaceutical chemist, Glasgow, communicated two papers. The first was on

AN INCOMPATIBLE STRYCHNINE MIXTURE.

The following prescription was dispensed:—

Liq. sod. arsen.	...	...	...	5ss.
Liq. strych.	...	...	...	5ss.
M.				

A few minutes after the liquors were mixed the inside of the bottle became covered with a granular deposit, which increased on standing and became crystalline. It was washed, dissolved in methylated spirit, and on examination was found to be strychnine. The question arose, What caused the precipitate? "Squire" gave no clue, but the B.P. says sodium arsenate "yields an alkaline solution." Liq. strych. 1835 does not give the precipitate owing to the excess of acid in it neutralising the alkalinity of the arsenical solution. Two and a half minims of dilute hydrochloric acid makes 1 oz. of liq. sod. arsen. faintly acid, and this is quite compatible with liq. strych. hydrochlor. 1898. This observation suggests an amendment of the formula for making liq. sod. arsen., and accounts for the opalescence which is produced when liq. sod. arsen. is added to mixtures containing syr. ferri iodid.

In the discussion which followed, Mr. GEORGE LUNAN said he had tried mixing solutions of strychnine hydrochloride and sodium arsenate, and found his experience agreed generally with Mr. Dunlop's in regard to the production of a precipitate. Although Mr. Dunlop's results were somewhat different from his, he thought it was due to the alkalinity of the sodium arsenate. The salt was crystallised from an alkaline solution, and the alkalinity might be due to traces of alkali. A salt such as sodium phosphate behaved in a similar way. It was evident that this mixture was not compatible, and they might go so far in altering the Pharmacopœia by making it neutral. That would be the only way to guarantee the safety of patients.

Mr. DOTT said the principal lesson of the paper was to point out how exceedingly rash medical men were in prescribing mixtures without thinking of the consequences. He could not understand the reason for prescribing these two liquors together, and no care seemed to be taken to ensure the solubility of any compound that might be formed. Sodium arsenate generally exhibited a trace of carbonate, and the precipitation might be attributed to that. He did not think the explanation of alkalinity was correct: it was not probable that the salt would decompose in solution. It should be quite possible to get a pure salt and a neutral solution.

Dr. COULL said this note was interesting both to dispensers and manufacturers. He thought the sodium arsenate was at fault, and carbonate was present, due to the process of manufacture. He did not think the alkalinity of sodium arsenate was due to the dissociation of the sodium arsenate in solution.

Mr. MACDOUGALL spoke of the practical information which Mr. Dunlop's paper gave to dispensers.

Mr. SIMPSON supported the explanation of alkalinity which, he said, was based on Ostwald's theory of ions, and was the true one. If the alkalinity was due to sodium oxide it could be removed by washing with alcohol, in which sodium arsenate was insoluble.

Mr. HILL said he had a letter from Mr. Duncan, who was unable to be present, in which he said the precipitation in Mr. Dunlop's mixture was due to hydrolysis of sodium arsenate into sodium dihydrogen arsenate and sodium hydroxide, and not to sodium oxide, as an impurity. Similar results followed with other salts, such as phosphates, borates, and acetates, which gave alkaline solutions. Even alcohol-washed salts, which would be free from any accidental sodium oxide gave similar results. Mr. Hill, speaking for himself, supported Mr. Dott's observations regarding the carelessness or ignorance of prescribers in prescribing mixtures without knowing or thinking what the probable outcome might be. He doubted the accuracy of the explanation of alkalinity. One point against that, however, was that Mr. Dunlop found the precipitate to be free alkaloid.

The CHAIRMAN spoke of the interesting character of the speculative discussion, another differences of opinion following Mr. Dunlop's paper. He suggested that some of the experts should take up and settle the point left open as to the cause of the precipitate.

Mr. DUNLOP replied, and then read his second paper on

MACERATION TINCTURES.

This dealt with the point of making up the finished tinctures to a definite volume, a principle which the 1898 B.P. has departed from in some cases. Of thirty B.P. tinctures made by mixture or maceration twelve are directed to be made up to 1 pint. In the other eighteen 1 pint of menstruum is taken, and no allowance is made for increase or diminution of volume. Tinctures of asafetida, gualacum, ammoniacum, and myrrh are examples of allowance; compound tincture of cardamoms and tincture of squill of none. Allowance is made in tincture of kino with 2 oz. of drug to the pint, but none in tincture of catechu with 4 oz. to the pint. Of the thirty tinctures only one is new, and, of the remaining twenty-nine, three were formerly of indefinite volume. One of the freaks of the Pharmacopœia is seen in acetum and tr. scillæ. In the 1885 Pharmacopœia the former was of indefinite and the latter of definite volumes; now it was the other way about, although the squill used adds fully an ounce to the volume of these preparations. Mr. Dunlop gave results obtained in making a pint of six tinctures, showing that the amount of drugs ordered in each was likely to affect the product either in loss or gain. The products of tinctures of calumba and gentian co. fell short of the menstrua taken, the amount of soluble matter in the drugs being small and the marcs incompressible, which was demonstrated in the fact that the expressed marcs were heavier than the original weights of drugs. On the other hand, compound tincture of cardamoms and tinctures of catechu and squill being made from drugs containing a large amount of soluble matter, the products were in excess of the menstrua taken. The strength of tinctures is now 1 to x instead of 1 in x as formerly. Compound tincture of senna falls short of the menstruum taken. The plea put forward for not "making up" had been that what was in the marc after expression was the same strength as what had been expressed, so that "making up" fostered careless manipulation. He found the marc in each case after expressing and drying inert, so that what was lost in drying was spirit, the whole of the activity being in the strained and expressed portions. He thought, however, that the process would be improved by conducting it uniformly, except in the case of tr. pruni virg., on the lines of the 1885 percolation process:—Macerate in three-fourths of the menstruum for the specified time, strain, wash out with 3 oz. of menstruum, express, and "make up" to 1 pint. The recovery of the residual tincture spirit might be resorted to on the manufacturing scale, but if the Pharmacopœia is to be for pharmacists each process should be complete in itself.

In advocating definiteness of volume he wished to direct attention to the fact that the average weight of moisture in the expressed marcs reported on was $\frac{3}{4}$ oz., so that

where the deficit was not counterbalanced by soluble matter the loss must be due to evaporation, and that "making-up" would be quite justifiable. The increased strength of most of the tinctures also warranted it. The author also referred to Lucas's table of tinctures, and said he was at a loss to know how he accounted for the deficits in the case of tr. card. co., tr. catechu, and tr. scillæ. To have only 0.06 of a difference between tr. pruni virg., which was made from 4 oz. of a bark, with an undensified menstruum, and tr. catechu, which was made from 4 oz. of an almost entirely soluble extract, with a condensed menstruum, indicated a discrepancy somewhere.

Mr. C. F. HENRY said his results with an ordinary screw-press were slightly under those of Mr. Dunlop. There had been a discussion in the journals as to whether infusions should be made up to a definite volume, and Professor Attfield had settled that point in a letter giving a negative answer. That reply would apply to tinctures as well. He wished to know whether the expressed liquid was of the same strength as that which remained in the marc, and whether the last ounce expressed was as strong as the menstruum filtered at first. If that were not so there would be want of uniformity in proportion to the pressure employed.

Dr. COULL held they could not doubt the Pharmacopœia intended that these tinctures should not be made up. Dr. Symes had investigated the matter, and the present plan brought them, as Mr. MacEwan pointed out, into line with continental Pharmacopœias. Regarding the yield, Mr. Dunlop got in catechu and squills especially. He agreed with Lucas.

Mr. GUYER agreed that the Pharmacopœia directions were quite distinct, but there was often variation in yield of tincture due to quantity of moisture, as, for instance, in tincture of orange, which varied according to circumstances.

Mr. LUNAN gave it as his opinion that the Pharmacopœia had considered well with regard to these tinctures so far as uniformity was concerned, and he did not see how they were to improve on them.

Mr. GLASS said there was always a little evaporation, which varied according to the conditions of filtration, and that was one reason why the tincture should be made up.

Mr. HILL referred to the tendency of the Pharmacopœia to throw into the hands of wholesale makers the manufacture of these tinctures, thus depriving the public of the legal guarantee for the making of pharmaceutical preparations. He suggested that cane sugar might well replace raisins in tinctures of cardamoms and senna, which could then be much better prepared by percolation. By macerating with one-half of the menstruum and then the other half, pressing and making up, greater uniformity would be secured.

The CHAIRMAN said the present official method had been adopted to secure uniformity, and he thought it did. He did not see how the tincture expressed could differ from that which remained in the marc if the official process was followed correctly. One weak point of the Pharmacopœia was that it omitted to give an approximate volume. He protested against the omission of raisins and the substitution of cane-sugar. Pharmacy was an art, and raisins gave mellowness to the tincture, which was not obtainable by the use of cane-sugar. He did not see why they should rot treat medicinal tinctures as they did liquors used to titillate the palate. (Laughter)

Mr. DUNLOP, having replied, received a vote of thanks, and the meeting terminated.

Plymouth and District Chemists' Association.

On December 6 a meeting of the Trade Section was held, at which the following officers were elected for the ensuing year:—President, Mr. W. Condy U'Ren; Hon. Treasurer, Mr. C. T. Weary; Hon. Secretary, Mr. F. A. Goodwin.

Western Chemists' Association.

METROPOLITAN OPINION on the company-pharmacy question is mainly of the amorphous type. London chemists have had to contend with it longer than their provincial confrères, and

competition is always so keen here that one other element in the mass has come to be regarded with a grumble, while those who feel strongly about the matter are the uncompromisers, who would rather leave well or worse alone than do anything in the way of recognising what they regard as illegitimate competition. Consequently, there seemed to be nothing of first-class importance attached to the meeting of the Western Chemists' Association, held in the Westbourne Restaurant on Wednesday evening, December 20, for it came at the tail-end of the discussion, which has been going on during the past six weeks more vigorously than at any period since companies dropped into our midst. But the event turned out to have special importance, for the debate was to be opened by Mr. Walter Hills, ex-President of the Pharmaceutical Society, and, as he speaks from exceptional knowledge of those factors in the movement with which the rank and file cannot get into touch, his utterances are worthy of special consideration—first, because in his capacity as President of the Pharmaceutical Society he has had opportunity of getting into direct touch with the Government, and thus to learn what they are prepared to do; second, the strength and disposition of the force opposed to company legislation is within his ken; and, third, these elements help to bring us closely into touch with the possible in this question. But first Mr. J. F. HARRINGTON, President of the Association, had to deliver his address, and he took a common-sense view of the situation by confining himself to a few remarks on the

QUESTION OF THE HOUR,

his opinions being so akin to those expressed later by Mr. Hills that we venture to omit them. In what follows we give the substance of Mr. Hills's address, which was delivered at the request of the Association. After a few preliminary remarks Mr. Hills said:—

When I speak of protection or restriction of practice of pharmacy, I mean that amount of protection or restriction which is indicated by the words "keeping open shop for the retailing, dispensing, or compounding of poisons." I am aware that the second clause in the Companies Acts Amendment Bill, 1899, says that "no company may carry on the business of a pharmaceutical chemist, &c.," except under certain conditions. Whilst I am entirely in favour of this wider definition, I am doubtful if it would, unless interpreted, cover more of practice than is defined in the Pharmacy Act, 1838, and probably more is not intended.

He then briefly referred to the objects of the 1852 Pharmacy Act, and in regard to the 1863 Act said:—

Under it persons entitled to keep open shop were not only those who were at that time or who should become registered as pharmaceutical chemists, but also those who should pass the examination "provided under the Pharmacy Act, 1852, for the purposes of a qualification to be registered as assistants under that Act." If the original ideas underlying the 1852 Act had been made compulsory in 1868, there would have been less subsequent trouble. It must always be borne in mind that Parliament has expressed its opinion that the person who at the age of twenty-one has passed what is known as the Minor examination is competent to keep open shop on his own account; in this respect, therefore, he is on the same level with the pharmaceutical chemist.

I think we shall agree that when the 1868 Act passed, the case of limited companies keeping open shop was not contemplated, in fact, it was

A "CASUS OMISSUS."

We shall also probably agree that the idea which our representatives had in their minds at that time was broadly that the proprietor of each open shop should be qualified. I say *each*, for though branch-shops were not in any way prohibited, it could hardly have been contemplated that qualified proprietors should be permitted to keep an unlimited number of such shops, a tendency very remarkable at the present time. It was also generally believed that the qualified owner, being responsible for the conduct of the business, was also responsible for each sale of a poison, and might himself be the judge as to how far it was necessary to employ qualified assistants to do the physical acts of sale or compounding.

Reference was next made to the case of the Pharmaceutical Society v. the London and Provincial Supply Association, from which the trouble started, and the judgment in 1890 by Mr. Justice Hawkins, which required that every sale of poison should be made by a qualified person or under his actual personal supervision. As to the effect of these, Mr. Hills said:—

Under these judgments, therefore, the public appears to be

protected so far as the actual physical sale is concerned, always assuming that when the law is not observed, a reasonably easy method of proving its infraction is attainable. Nevertheless it is contended by us, and I think rightly so, that sufficient provision for the public safety is not thereby secured in accordance with the 1868 Act, unless the "keeping open shop" is also restricted to qualified persons.

There has been, however, considerable difficulty in bringing this important point before the public on the lines we have thought desirable. I am bound to admit that, in my opinion, the judgment of the House of Lords was one largely of expediency, and, if this opinion is in any way correct, the difficulty experienced by the Council in getting the Pharmacy Act amended in the desired direction is accounted for. Various attempts, however, have been made, and recent events have led some of us to hope that an amendment of the law to prevent company-trading was possible. I have to remind you of the apparently sympathetic remarks of the Lord Chancellor in the House of Lords, both in 1898 and in the present year. It is also an important advantage that, largely owing to the unwearied efforts of Mr. Carteighe and others, the position of companies with reference to the practice of pharmacy has been considered of sufficient public importance to be dealt with in a Companies Acts Amendment Bill. In spite, however, of these encouraging factors, the clause that has actually been drafted, and already approved by the House of Lords, is one with which we cannot be satisfied; and as the Bill will probably be introduced into Parliament next Session; it is necessary that we should be prepared with a policy on which there may be some general agreement amongst registered persons.

Mr. Hills then mentioned the Pharmaceutical Council's position in the matter, saying that each member had an earnest desire to obtain every possible advantage for those they represent. Speaking for himself, he added—

Personally, I have long been of opinion that Parliament would not attach much importance to the financial aspect of the question, though I must admit that I was so much impressed last year with the remarks of the Lord Chancellor, to which I have already alluded, that I thought it possible the Government would not be unwilling to support us in getting the law amended in the desired direction. I have always maintained that to get the law so amended two factors were necessary, one being the support of the Government and the other the general support of our own body. When, however, I see the Lord Chancellor's clause, knowing that our wishes have been fully laid before him, I am again doubtful if the prohibition of company-trading is a practical object to aim at.

The difficulty of dealing with the subject has always been somewhat increased by the existence in the 1868 Act of the so-called "Widow's Clause," and at the present time a further difficulty arises from the fact that not only have companies, more or less of a bogus nature, been formed to keep open shop, but also many of our own members have found it convenient and advantageous to make use of the limited-liability principle. Many—probably all—of the latter, being entirely controlled, except financially, by registered persons, are not the least source of mischief to the public; but still they have to be reckoned with in framing a policy which would command general acceptance. The prohibition of *all* company-trading, which I may call

THE FIRST LINE OF DEFENCE,

is undoubtedly the best and strongest, not only from the logical, but also from the pharmaceutically popular point of view, and is one which even now may be urged upon the Government, if the Council, or a majority of the Council, with any special knowledge they may possess or obtain, consider such a policy one that will receive a considerate attention by the Government.

But I am of opinion that if this line is now adopted it will be necessary, in order to be thoroughly logical, to insist that *no* limited company, although constituted largely of registered persons, should be permitted to "keep open shop."

I can certainly conceive a company consisting at its inception entirely of registered individuals, though there must be a minimum of seven persons; but what, I ask, will happen when one of the seven dies? Will the trustee for the widow, though unqualified, be allowed to form one of the company? Moreover to be strictly logical, no single share, whether ordinary, preference, or debenture, should be held by an unregistered person. Still, for the general good, possibly the companies already in existence would be ready to "unlimit" themselves. I am firmly opposed to any suggestion prohibiting the future formation of companies, whilst allowing those already in existence to indefinitely continue.

If, however, our first line of defence is not tenable, are we to oppose any and every proposal recognising the limited principle in pharmacy? I hope not, for two reasons, (1) because I believe the Government to be in earnest and intend to legislate on the subject, and (2) because, as matters are getting every year more

unsatisfactory, we ought at the present juncture to endeavour to get

SOME IMPROVEMENT IN THE LAW.

We ought to insist on the restriction of titles to registered persons. If we do this we shall probably succeed, because it is a strong position to adopt, and one which will, I think, recommend itself to the majority of members of Parliament. Here, however, we may possibly find some opposition, not only from the one-man company, but also from some of our own members who are trading as companies. These would, however, for the general good, perhaps not press their opposition, as they could always use titles in connection with their own names.

Having explained that the mere protection of titles would not ensure the full relief desired, Mr. Hills proceeded to speak about the most difficult part of the whole question—their of “keeping open shop.” He maintained—

that we have a strong case if we approach the Government, and point out that the clause as drafted in the present Bill does not in the public interest sufficiently provide for one of the essential principles of the Pharmacy Act, because it does not insist on the qualification in a company of a responsible person, not only to do the physical act of sale, but also to control the open shop; and thus it does not supply in any way the safeguard represented by a qualified ownership. *Inter alia* it might be pointed out that under the clause as drafted an assistant qualified the previous day, and liable to dismissal at a day's notice, might be stated to be in full control of a shop owned and managed entirely by unregistered persons forming the company—a condition surely not compatible with the public interest. Many proposals, having for their object the provision for this *bona-fide* control have been made. If we could agree to the principle of recognition of company-trading, I should be inclined to take the advice of some eminent legal authority on company-law, and ask him, with all the facts before him, to frame for our consideration a clause which, with the least amount of probable opposition in Parliament, would make control something of a reality, and so bring companies as nearly as possible into line with qualified individual proprietors. Such a clause should not interfere with the conduct of a company-business under the complete control of qualified persons, but should make it practically impossible for a bogus company to keep open shop.

Probably we all agree that, if companies are allowed to keep open shop, the provision in Clause 2 making “anything which would be an offence under Section 15 of the Pharmacy Act, 1863, if committed by an individual, also an offence if committed by a company,” is a desirable one, and one of urgent necessity in carrying out the law.

As regards Clause 3 of the Companies Bill, dealing with other professions, I think it very unlikely that it will pass in its present form, as it seems to propose preventing companies doing what an individual is entitled to do. It must also be admitted that, though our titles should be equally protected with those of medical practitioners and dentists, their practice is more uniformly professional than that of pharmacy is—or, indeed, is likely to be, unless pharmacists have the exclusive right of dispensing medicines.

In placing my resolution before you I wish to emphasise these points which it covers:—

(1) That in adopting the first line of defence all company-trading should be prohibited, and

(2) That if this be found to be impracticable efforts should be made in the direction of

(a) Protection of titles to qualified individuals, and

(b) *Bona-fide* control of all open shops owned by companies.

Mr. HILLS then submitted the following proposal, and moved it as a proposition. It was in the following terms:—

That in view of the probable introduction of the Companies Act Amendment Bill into Parliament next session, this Association is of opinion that, should the Pharmaceutical Council be convinced that to restrain all companies from keeping open shop for the retailing, dispensing, or compounding of poisons is not feasible, legislation on the following lines would be desirable:—

(1) To make it unlawful for companies to assume or use titles implying registration under the Pharmacy Acts.

(2) To provide that all such open shops should be under the sole control of persons registered under the Pharmacy Act, 1868.

Mr. CRACKNELL seconded the motion.

Mr. PARKER pointed out that the days of monopoly granting are past. Pharmacy pure and simple would always stand on its own merits: it was a thing personal to the individual and needed no protection. But as only a small number of their body derived their income from pure pharmacy, the trading-aspect must be legislated for. As to titles, it would be difficult to frame a clause which would not interfere with companies composed of

registered persons only in long-established business. The simplest method of dealing with the company-question was the registration of every pharmacy and every qualified manager in each shop. To go for total abolition of companies was senseless. He was in favour of a qualified directorate, and would insist that there should be at least one director for every open shop carried on by the company. If they could obtain sole use of the title and insist on every shop being under the *bona-fide* control of a qualified person a great deal would be done for the future of pharmacy.

Mr. WARREN did not see that any good could be done in regulating company-pharmacy, and if Parliament would not give them full right to their titles he should reserve further efforts in the question, rather than be bound hand and foot to recognise those companies who had divorced the best traditions of the trade, and had more or less sapped the foundations of commercial morality.

Mr. ANDREWS saw no hope of going for the titles alone, and had been, and was still, in favour of the scheme advocated by Mr. Parker for the registration of pharmacies and pharmacists.

Mr. HYSLOP said he had read a good deal in the journals more or less connected with pharmacy during the past few months on this company-question. The more he read, the more he heard, the more mystified he became. The puff-windedness of some of the speeches he had read and listened to was most amusing to him. It seemed to be the policy of the present moment to go at the small; his advice would be to go at the big. They had been meddling, creeping, and pretending long enough, and giving way to the adversary, and the more they adopted that policy the more they would be worsted. This talk of protection of title which seemed to be so much desired was all mere moonshine. On looking back at pharmacy during the last thirty years he could see that they had been gradually, steadily progressing towards one title, and in the future one title would predominate. This halting policy was bad thirty years ago—it is worse now. After a slight lapse into metaphysics Mr. Hyslop proceeded to say that the whole of our interests have been allowed to lapse by the hesitating sentimental jellyfish position which the Pharmaceutical Society have taken up. We should show that it is the Government's duty to help us to maintain our position. There is no competition in the matter at all. We do not compete with grocers, or stores, or even ourselves. There can be no competition in pharmacy. What we demand is that those responsibilities which have been put upon us should be recognised and we should be set free from all the trammels of the unfair competition around us, mainly for the public good.

MR. GLYN-JONES said in respect to the proposals submitted that many were apt to lose sight of the fact that the Legislature only recognised us as a body of men qualified to sell poisons. Another thing to be remembered was that it was not an offence for an unqualified man to dispense medicines, as long as they were handed over the counter by a qualified seller. He also reminded the meeting that, in spite of repeated attempts during the past thirty years, the Pharmaceutical Council had never been able to get any legislation carried except the Bill of last year, and he felt that they could never do anything without the assistance of the Government. A splendid opportunity was lost last year by the Council taking the advice advocated by Mr. Hyslop that night, and asking for too much. He had not been long enough on the Council of the Pharmaceutical Society to be so passionately fond of unanimous resolutions as some of them, and he did not quite agree with the resolutions put forward by Mr. Hills, but would not divide the meeting on the question. He thought it would have been much more useful if the Association had sent an expression of opinion to the Council as to whether they considered the total restriction of company-trading at all feasible. He did not like the idea of a partly-qualified board of directors. That sort of thing would give rise to “dummy” directors, and they should insist on companies being under the direction of qualified governors and owners. He would also advocate the addition of a short amendment of the Pharmacy Act, making the master responsible for the acts of the servant. If to that was added the compulsory registration of names and addresses of qualified men, the question of unqualified managership would be in a large measure done away with.

MR. GAUBERT pointed out that if anything in regard to pharmacy was introduced into the Companies Bill the hands of the Pharmaceutical Council would be tied for ever in regard to independent legislative treatment of pharmacy.

MR. G. J. KNIGHT said that the Pharmaceutical Council had been remiss in not prosecuting limited companies for using their titles, but he imagined that they had a difficulty, seeing that they had allowed such firms as Savory & Moore and Godfrey & Cooke to continue trading under the old names.

MR. HILLS having briefly replied, the resolutions were agreed to *nem. con.*

The members then had a talk about the Conference meeting, and a subscription-list was handed round. In the course of the evening several members were elected, and the President announced a smoking concert for January 24, 1900.

Business Changes.

Notices of changes in the retail trade, and opening of new businesses, are inserted in this section free of charge, if properly authenticated.

MR. JONES has purchased Mr. H. G. Wildman's business at 88 Norwood Road,ulse Hill, S.E.

MR. J. G. HARRIS has purchased the business of Mr. Allthorpe, Greyhound Lane, Streatham, S.W.

DAY'S METROPOLITAN DRUG COMPANY (LIMITED) have opened a new branch at 149 High Street, Chatham.

MR. H. WOOD, chemist, Strand, Walmer, has purchased Mr. Read's business at Harnet Street, Sandwich, Kent.

MR. J. MONK-JONES, pharmaceutical chemist, has opened a high-class pharmacy at 6 High Street, Whitstable-on-Sea.

IN consequence of the illness of Mr. W. R. P. Nettle, of 18 Upper Tooting Road, S.W., his business has been disposed of to Mr. Jones.

MESSRS. JOHNSON & Co., chemists, have purchased the business of Messrs. Roberts & Co. at 231 High Street, Lewisham, S.E.

MR. J. CLEGHORN has purchased the old-established business at Spring Grove, Isleworth, carried on for many years by Mr. Larkworthy.

MR. DAWSON, from Messrs. Allen & Hanbrys, Vere Street, W., has purchased the business lately carried on by Mr. W. Drane at Knight's Hill, South Norwood.

MR. W. CYRUS RETALLACK, M.P.S., has opened an attractive and neatly fitted pharmacy at St. Hilary Terrace, Stoke, Devonport, designated the "Brunswick Pharmacy."

MESSRS. TYPKE & KING, chemical manufacturers, inform us that owing to the rebuilding of Jeffreys Square they are to remove on January 1, 1900, to 47 Wilson Street, Finsbury Square, E.C.

MR. THOMAS WICKERMAN has taken over the business of Messrs. J. & J. Clemishaw, wholesale druggists and dry-salters, Bury, of which he has had the management for the past eight years.

MR. W. H. GOY, chemist and druggist, for the past eight years with Messrs. Allen & Hanbrys (Limited), Plough Court, E.C., has purchased the pharmacy at 17 Battersea Rise, Clapham Common, S.W., formerly owned by Mr. Arthur Davy.

THE TIMOTHY WHITE COMPANY, Portsmouth, have purchased the business of Mr. Bush at High Street, Margate, and the business they purchased in Queen Street, Ramsgate, is being transferred to more commodious premises at Harbour Street, Ramsgate.

SUPPLEMENTARY to our note last week regarding the dissolution of partnership between Messrs. Bryant & Aitkens, foreign and colonial brokers, we may state that Mr. Bryant remains at the old address, 5 Market Buildings, Mincing Lane, E.C., and will trade as Thomas Bryant & Co., while Mr. Aitkens has taken premises at 28 Market Buildings under the trade name of A. J. Aitkens & Co.

New Books.

Any book named in this list can be supplied post-free to any part of the world on receipt of the published price by the Publisher of THE CHEMIST AND DRUGGIST, 42 Cannon Street, London, E.C.

Abney, W. de W. *Colour Sensations in Terms of Luminosity.* Phil. Trans., vol. 193. pp. 259-287. 1s. 6d. (Dalan.)

Bocquillon-Limousin, H. *Formulaire des médicaments nouveaux pour 1900.* Pp. 324. 3f. (Baillière et fils.)

Bræmer, Dr. L., and Dr. A. Suis. *Atlas de Photomicrographie des Plantes Médicinales.* 9½ x 6. Pp. vi. + 231, and 159 figures. 15f. (Vigot frères, Paris.)

British Journal Photographic Almanac, 1900. 7½ x 4½. 1s.

Bruce, J. M. *Principles of Treatment, and their Applications in Practical Medicine.* 9½ x 5½. Pp. 632. 16s. (Pentland.)

Charteris, M. *Practice of Medicine.* 8th ed. 7½ x 4½. Pp. 672. 10s. (Churchill.)

Dallmeyer, T. R. *Telephotography.* 26 plates, 66 diagr. 9½ x 7½. Pp. 164. 15s. net. (Heinemann.)

Fleming, J. A. *Electric Lamps and Electric Lighting: Lectures at the Royal Institution on Electric Illumination.* 8½ x 5½. Pp. 276. 6s. (Electrician Office.)

Landholt, H. *Optical Activity and Chemical Composition.* Trans. by John McCrae. 7½ x 4½. Pp. 170. 4s. 6d. (Whittaker.)

Leach, H. *Ship Captain's Medical Guide.* 12th ed. 7½ x 4½. Pp. 160, swd. 1s. 3d. (Simpkin.)

Lehfeldt, R. A. *Text-book of Physical Chemistry.* 7½ x 4½. Pp. 320. 7s. 6d. (Arnold.)

McKendrick, J. G. *Hermann Ludwig Ferdinand von Helmholtz.* 7½ x 5. Pp. 316. 3s. 6d. (Unwin.)

Méric, H. de. *Dictionnaire des Termes de Médecine. Français-Anglais.* 8½ x 5½. Pp. 252. 4s. net. (Baillière.)

Newstead, R. *General Index to Annual Reports of Observations of Injurious Insects, 1877-98, by Eleanor A. Ormerod* 9½ x 6½. Pp. 70. 1s. 6d. (Bell.)

Science Chemistry Papers: Questions set at Interm. Science and Prelim. Scientific Exams. of London University from 1869 to 1899. Cr. 8vo. Pp. 72, swd. 2s. 6d. (Clive.)

At the Counter.

A SUBSCRIBER in the United States sends us a photograph of the following order:—"10cts worth of Per Hoxegeriden. I can't spell it; you must guess it."



AN UNPROFITABLE ORDER.—"Please, missns wants a stamp; an' she said as the stores was shut you might as well poison this cat." (Fact, vouched for by the artist.)

A FACT.—Scene, a pharmacy at an inland health-resort; customer in the garb of a district nurse, *log*. "Have you any sick-room thermometers?" Pharmacist: "Oh, yes, madam, we have several kinds." (Shows them.) Customer (after careful deliberation): "I am afraid you have not got what I want. It is something like this one; but this is Maw, Son & Thompson's, and I want a Fahrenheit."

Legal Reports.

From the High Court.

PERFUMED AMULETS.

IN the Court of Chancery on December 15, the case of Carmichael v. Warwick came before Mr. Justice Kekewich. The plaintiff sought an injunction to restrain defendant from passing off his goods as the plaintiff's—perfumed amulets.

Mr. Warrington, Q.C., who appeared for the plaintiff, said there was a conflict of fact on the evidence. It did not, therefore, seem to be a case to be dealt with on a motion. It would in that event be necessary to make some arrangement for a trial of the action. It was not a case in which pleadings ought to be dispensed with.

His Lordship said that in the case of passing-off actions he quite agreed that pleadings were necessary.

Mr. Warrington said that it was desirable for both sides.

Mr. Lawrence, Q.C., who appeared for the defendant, acquiesced. It was desirable not only that the plaintiff should see the defence but that the defendant should see the plaintiff's case. Pleadings there ought to be, but he did not think discovery would be necessary. Counsel having agreed that there should be discovery on both sides, Mr. Justice Kekewich said he supposed that it would include labels, &c.

Sale of Food and Drugs Act.

OLIVE OIL.

AT Malling (Kent) County Petty Sessions on December 11, Charles Coulter, drysalter, Nettlestead, was summoned for selling as olive oil an oil which was certified to be cottonseed oil. The defence was that olive oil was not kept in stock, and that that sold was used for lubricating purposes. Defendant was ordered to pay 9s. 9d. costs.

AT Dartford Police Court on December 9 the International Tea Company (Limited) was summoned for selling olive oil which was certified to consist entirely of cottonseed oil. Mr. Beck, who defended, did not dispute the analysis, but relied on a warranty from the wholesalers from whom his clients had bought the oil. The firm shipped their olive oil direct from Leghorn, but in September their shipments did not arrive, and they made a temporary purchase in London from Messrs. Henry Finkler & Co. They insisted upon having a guarantee, and the invoice stated that the oil was pure. The Chairman of the Bench said the wholesale vendors should be prosecuted. Mr. Beck said he was afraid they had no power, but there was no reason why the inspector should not prosecute them in London. Eventually the case was dismissed.

CAMPHORATED OIL.

AT the Lambeth Police Court on December 19, Mr. C. J. G. Bunker, chemist, Stuart Road, Peckham Rye, was summoned, before Mr. Hopkins, for selling camphorated oil which Dr. Frank Teed, the public analyst, certified to contain "only 12.9 per cent. of camphor, being a deficiency of 48 per cent. of the camphor to the prescribed quantity of olive oil." Dr. Teed gave evidence in support of the summons, and then Mr. Beck (for the defendant) took up the cross-examination. Dr. Teed said he found 12.9 of camphor. There should be 21.9, he thought.

Defendant: 21½.

Mr. Beck: As a matter of fact, if you work your figures out I think you will find it is only 40, and not 48.

Dr. Teed said the British Pharmacopoeia gave instructions for making the oil, but it did not say it should answer a certain test afterwards. It was a fact that camphor in itself was an exceedingly volatile substance, but not when dissolved in oil. If warm oil were used, there would only be a small percentage of loss. No more than an ordinary temperature should be used.

Mr. Beck: Supposing the olive oil was extremely thick, it would not be possible to dissolve camphor except by standing it for a long time?

Dr. Teed: It would take perhaps half an hour.

Mr. Beck: I put it to you that to make any quantity of camphorated oil in half an hour would require heat? Dr. Teed: I think not. The Pharmacopoeia directs you to take flowers of camphor, which dissolves very rapidly.

Mr. Beck said he was bound to accept Dr. Teed's evidence as to the commercial standard for camphorated oil. As Dr. Teed had admitted, the Pharmacopoeia itself stated camphor was an extremely volatile substance, and the use of heated oil would drive off a proportion of the camphor. The defendant was a responsible gentleman, carrying on a good-class business, and he employed a manager to take charge of this shop. The manager would tell the Court that he made the oil a week before the inspector purchased it. In cold weather olive oil became thick, and because he wanted some quickly the manager put it in a jug by the fire to warm the oil and thus dissolve the camphor. He would say on his oath that he put in the quantity prescribed by the Pharmacopoeia. The latter did not give a test for camphorated oil, and possibly the compellers were alive to the fact that there was a loss in the manufacture.

Mr. William Thomas, the manager of the shop, here deposed to taking 8 oz. of camphor and 32 oz. of olive oil. He put the mixture in a jug and stood it on the hob, so as to heat the oil and dissolve the camphor quickly. In cross-examination witness could not account for samples made by other chemists being correct. He had used flowers of camphor.

Mr. Marsden (for the prosecution): Dr. Teed tells me that of twelve samples taken ten were up to the standard.

Mr. Hopkins (to defendant): Whatever the explanation may be, you will see for yourself that your drugs are at half their strength.

Defendant: It is not 48; the deficiency is not more than 40. I am very sorry. It is not my wish that it should be so. Mr. Hopkins ordered the defendant to pay a fine of 40s. and 27s. 6d. costs.

Mr. Frank H. Davies, chemist, Hindman's Road, East Dulwich, appeared to answer a similar summons. In this case Dr. Teed's certificate was to the effect that the sample contained 14 per cent. of camphor, being a deficiency of 40 per cent. The defendant said camphor was a very volatile sort of thing, and pointed out that the Pharmacopoeia did not give any test by which camphorated oil could be tested after manufacture. He was prepared to say that the camphor was put in of the proper strength. Answering a question by the Magistrate, Dr. Teed said the samples of camphorated oil he had analysed were generally pretty accurate and within ¼ per cent. too high or too low. The defendant remarked that since these prosecutions were instituted chemists had been putting more than the prescribed quantity of camphor into the oil. Mr. Hopkins ordered the defendant to pay a penalty of 40s. and 27s. 6d. costs.

AT Melton Mowbray (Leicestershire) Petty Sessions on December 19, Joseph William Conlston, grocer, Wymondham, was ordered to pay 17 0s. 6d. in respect to the sale of camphorated oil deficient in strength. His defence was that the stuff was part of the stock of the shop, which he bought six months ago. After he read the summons his assistant told him that it had been made on the premises.

AT Leicester, on December 21, Cecil A. Buzzard, manager of the Anstey Co-operative Society, William Lacey, grocer, George Morgan, grocer, and George Roe, general dealer, all of Anstey, were severally summoned for selling camphorated oil which Dr. Bernard Dyer, county analyst, reported not to be compounded in accordance with the formula of the British Pharmacopoeia. The defence was that the oil was purchased from wholesale chemists and was accordingly looked upon as reliable. Mr. H. Simpson appeared for Buzzard, and said his client had nothing whatever to do with the purchase of the oil. The Bench reminded all the defendants that they should have obtained a guarantee as to the reliability of the oil before purchasing it. Morgan, who did not appear, was fined 30s., inclusive of costs, and the other defendants 25s. each.

SPIRIT OF NITRE.

AT Matlock Police Court on December 13, Dorothy Wilson, grocer, Matlock, was fined 10s. and 8s. costs for selling

sweet spirit of nitre which was found on analysis to be four-fifths deficient in nitrous ether.

Merchandise-marks Act.

AERATED-WATER BOTTLES.

AT Strabane Petty Sessions last week, the proprietors of the Standard Mineral Water Company, Londonderry, were prosecuted under the Merchandise-marks Act for having in their possession within the past three months for sale aerated waters to which a false trade description was applied. The defendants admitted selling the mineral water, but pleaded that their own labels were affixed to the bottles. The Act had been on the Statute-book since 1887, but had only lately been enforced. Since the defendants had been made aware of the illegality of using bottles on which the names of other firms were blown they had given orders to the bottlers to return these bottles. The Bench agreed that there was no intention to defraud, and acknowledged that there was always a great temptation to use empty bottles when people had them. A fine of 1s. and 20s. costs was imposed.

AT the Justiciary Appeal Court, Edinburgh, on December 19, James Haddow, aerated-water manufacturer, Falkirk, appealed against the decision of the Falkirk Sheriff Substitute fining him 1l. for selling ale in a bottle bearing another firm's name and address. Prosecution had been undertaken by the Glasgow and West of Scotland Aerated-waters Manufacturers' Association. The ground of the appeal was that the mere sand-blasting of another person's name upon a bottle bearing the applicant's label did not indicate that the contents were identified with the firm whose name was so marked. At all events, he had acted without intent to defraud, and this was good ground, it was contended, for granting the appeal. The Lord Justice Clerk pointed out that the "acted innocently" of the statute was not synonymous with the "without intent to defraud" of the Sheriff's finding, for it was quite plain that he had acted wilfully and knowingly in the face of repeated warnings. The appeal was accordingly dismissed, with 10l. 10s. expenses.

IN a similar case John Cuthbert, aerated-water manufacturer, Perth, sought to set aside a conviction obtained against him by W. B. Thomson (Limited), Perth. In this case it was argued that a company could not restrain another from using a name which they did not say was their own name or a name which they were using. The company in such a case might, it was argued, have a civil action against the person complained against, but they had no right to put the criminal act in force against him. Their Lordships dismissed the appeal, with expenses.

County Court Cases.

APPOINTING A RECEIVER.

IN the City of London Court on December 5, an application was made to Mr. Commissioner Kerr by Leslies (Limited), Bond Court House, Walbrook, E.C., to have the High Bailiff of the Court appointed as a receiver of the affairs of the defendant, Mr. H. B. Spink, chemist, the Holborn Pharmacy and Drug-stores, 134 Theobald's Road. There was 3l. 10s. 3d. due, and the receiver was asked for by way of equitable execution. Mr. Collins, solicitor, for Mr. Arthur B. Spink, defendant's partner, said he was quite solvent. The defendant had been ill for some months, and had undergone an operation for cancer on the liver. He had been quite unable to pay. Mr. Commissioner Kerr, in making the order as asked, said that the receiver would, of course, only take the defendant's profits, and he would not press if it was shown that the money was coming.

NOT THE DRAINS.

AT Clerkenwell County Court on December 15, Sarah Ann Willcock sued Harry Bowman Spink, chemist, of 134 Theobald's Road, Holborn, for 16l., being rent due for house at 83 Camden Road. Defendant counterclaimed for 100l. for loss of business and ill-health caused by the

defective drains. The claim he admitted, but wished for a revocation and cancellation of the tenancy agreement. Mr. Spink spoke to Mrs. Willcock about the house in Camden Road, and asked her if the drains were in good order. She assured him they were in perfect order, and on the faith of that representation he took the house. Evidence on this point was given by both Mr. and Mrs. Spink, who said they remembered the circumstances perfectly. Shortly after he went to this house he was laid up for four or five months; and Dr. Mabrey, D.Sc. London, stated that Mr. Spink's illness was due to the bad drains.

A number of experts were called on behalf of Mr. Spink, who deposed as to the defective drainage system, but his Honour (Judge Edge, Q.C.) said defendant had no right to throw up his tenancy.

After further technical evidence had been given, the jury, in reply to the issue put by the Judge, said they were not satisfied that the representation was made that the drains were perfect.

Judgment for the plaintiff on the claim and counter-claim.

Alleged Fraud.

AT the Mansion House Police Court on December 13, John Thorn Ainslie Walker, described as a chemist, but not on the register, was charged with having, while servant to Messrs. Forbes, Abbott & Lennard (Limited), chemical manufacturers, Gracechurch Street, concurred in the making of false entries in certain books. After evidence for the prosecution had been given, prisoner was remanded.

Explosives Act.

MAKING FIREWORKS.

AT North London Police Court on December 15, Leo Esteval was prosecuted by the London County Council for having certain explosives on his premises. The case arose out of a fatal explosion which took place at Dalston, in which four persons were injured and one child died (see *C. & D.*, December 2, page 291). The Magistrate said the making of fireworks in private houses was a highly dangerous practice, and defendant was liable to a fine of 100l. He would have to pay 3l. and 2s. costs.

Trade Notes.

MR FELIX PAVIA, vanilla-merchant, has extended his premises at St. Mary-at-Hill, E.C., and added a showroom to his warehouse.

MESSRS. DIETERICH, of Helfenberg, near Dresden, are reported to have given a supply of dressings for the use of the wounded in the South African war.

DISINFECTANTS FOR THE WAR.—The Sanitas Company (Limited) have presented the Central British Red Cross Committee with 1,000 bottles Sanitas fluid and a quantity of disinfecting-powder.

CHRISTMAS HOLIDAYS.—Messrs. Parke, Davis & Co. will close their London offices and warehouse from Saturday to Wednesday, December 27, but they have made arrangements for attending to telegraphic orders for antitoxic serums.

THE QUEEN'S CHOCOLATE.—We have the best possible authority for stating that Messrs. J. S. Fry & Sons (Limited) have supplied 40,000 tins of chocolate, to the Queen's order, for the soldiers in South Africa; that is the same as Messrs. Cadbury Brothers (Limited) have supplied.

"BRAZINE" SOLDER.—Messrs. J. A. Ingle & Co., 79 Arthington Street, Bradford, bring to our notice one of their specialties, "Brazine" chemical solder, which is being taken up as a side-line by chemists. The solder is made of a fusible metal which melts at a comparatively low temperature, and hence does not require the use of a soldering-iron. "Brazine" is sold in 3d. coils, and as it neither requires the use of spirit of salt nor the exercise of any considerable amount of skill to manipulate, it is very suitable for mending domestic pots and pans.

Correspondence.

In writing letters for publication correspondents should adopt a concise, but not abbreviated, style. They are requested to write on one side of the paper only. Letters with or without a nom-de-plume, must be authenticated by the name and address of the writer.

Notice to Correspondents. Queries should be written on separate pieces of paper, and the regulations printed under the section to which they apply should be strictly observed.

Asafetida.

SIR,—From a perusal of Mr. J. C. Umney's paper on asafetida in your issue of December 16, page 983, I am led to think he has misunderstood the meaning of the words he quotes. Mr. Moor was evidently quite aware that the intentional adulteration of asafetida is not practised in this country, but that the drug comes into commerce adulterated by those who collect it from the plant, for in the next sentence to the one quoted by Mr. Umney, Mr. Moor added, "The requirements of B.P. were too high, unless steps could be taken to raise the standard of the commercial article." With regard to my own statements, they are not reported with exactitude. I stated that I had had samples of asafetida examined for the amount of ash, not that I had examined them myself. The analyses were performed by a chemist whose results would, I am sure, be accepted without question by Mr. Umney or any other analyst. The results given by him were as follows:—"Commercial asafetida, 47.18 to 46.42 per cent. of ash; the samples of the tear gum, or the kind used for making tincture, yielded 4.82, 3.80, 1.86 per cent." "The commercial asafetida generally yields a little more than 40 per cent. of ash, and the tear or drop asafetida $1\frac{1}{2}$ to 5 per cent. of ash."

Mr. Umney is mistaken in supposing that the "stringent requirements of the British Pharmacopœia" were based on my statements. If he will turn to the B.P. of 1885 he will find that the limit of ash there given is also 10 per cent., and that the only difference made in the tests of the drug in the Pharmacopœia of 1898 is that the amount of the gum-resin soluble in rectified spirit—viz., 60 per cent.—is altered to 65 per cent. soluble in alcohol of 90 per cent. He also seems to forget that the monographs on each article were considered and criticised by several persons and committees before being finally confirmed or altered by the Medical Council.

With respect to the percentage of ash, I may point out that those given in the more recent of the Pharmacopœias which are generally recognised to be the best—viz., the German, Swiss, and Japanese—do not exceed 10 per cent. of ash as the maximum. The German gives 6 per cent.; the Swiss 6.8 per cent., "but in no case exceeding 10 per cent."; and the Japanese 10 per cent.; and Mr. Umney's own figures for the tear are between 3 and 6 per cent. (page 983). Mr. J. U. Lloyd states that "selected tears of which 76 per cent. was soluble in alcohol yielded 1.78 to 2.55 per cent. of ash, and that purified asafetida should be the only kind official."—*P.J.* (4), 2, page 243. The evidence given above seems to me to indicate that the B.P. tests for pure asafetida are by no means too stringent. If Mr. Umney is prepared to state that tears of asafetida yielding not more than 10 per cent. of ash will not afford 65 per cent. of matter soluble in alcohol of 90 per cent., and will produce figures and present samples to substantiate his contention at the next meeting of the British Pharmaceutical Conference, I, for one, shall be pleased to see them. If his point is proved, it should, and doubtless would, receive due consideration from the compilers of the next edition of the British Pharmacopœia. With respect to the scarcity of the tear asafetida, I stated at the meeting that I believed it was purely a matter of price. If retail and wholesale dealers would pay the price, the demand would soon bring about a supply. Mr. Umney states (*C. & D.*, December 16, 1899, page 934), "I am certain that a case of the finest drug that ever enters the port of London would not yield 5 per cent. of the drug of the official standard." If this be so, of what have the official tincture and pills been made since the publication of the 1885

Pharmacopœia?—for that work gives 10 per cent. of ash and 60 per cent. soluble in rectified spirit as the tests.

Senna-leaves at one time contained a large percentage of adulteration, but the demand for purer leaves led to the exportation of a better article, so that argel leaves are at the present time quite a curiosity, and, doubtless, will not appear again until the price of senna becomes too low to pay the producer. The same law of demand and supply has acted in the reverse manner with opium. A demand for opium containing only 10 per cent. of morphia has arisen to meet the B.P. requirements, and the article is lowered in quality by the Turkish manufacturer to meet the demand.

I am quite prepared to admit that asafetida or any other drug—e.g., jaborandi or Calabar beans—may not always be obtainable at the exact time that they are wanted by wholesale dealers. This arises from the fact that at times when prices are high the market becomes glutted in consequence, and the price then goes down to less than the cost of production. The importation then ceases, and the drug becomes scarce or absent altogether from the market until the demand increases and raises the price to one that pays the producer. But that asafetida in tears is not a "commercial article" I cannot agree. I have 2 lbs. of it in a jar received from Mr. Umney's firm, and signed "C. U." I have had samples from other houses and from drug-brokers at intervals during the last twenty-seven years, and a year or so ago, when I was told by a member of a wholesale firm that there was none on the market, I made inquiries, and I was told by a drug-broker that he had then five cases in stock that he could not sell because buyers would not give the price for it. In the report of the meeting of the Society of Public Analysts, on page 953, Mr. Chattaway said that he had examined samples in tears which gave 8 per cent., and some even as low as 2.3 per cent. of ash. Mr. Moor had examined one sample yielding only 7 per cent., and Mr. Ellwood in 1891 (*Pharm. Journ.* (3), xxii., page 392) was also evidently able to obtain at least four samples of asafetida in the tear. These appear not to have been specially selected, since the highest percentage soluble in rectified spirit did not exceed 6.2 per cent. I have not thought it necessary to look through the records of sales during the twenty-seven years I have been in London, since I find that during this year alone there have been two sales of the drug in the tear in the London market; but I think the above statements show that the tears are a commercial article and appear in bulk in the London market, and that when the price pays the producer there will be no difficulty in getting sufficient to supply the very limited demand for the pure drug for medicinal purposes. The standard of purity for drugs to be used in prescriptions should be the very highest obtainable; and it can hardly be expected that the General Medical Council should countenance the use of a drug containing from 20 to 60 per cent. of mineral matter to suit the convenience of cheap buyers, when an article containing less than 10 per cent. is procurable by those who will pay an adequate price for it and buy it when imported. If Mr. Umney will turn to the *C. & D.*, June 10, 1899, page 943, under Asafetida he will find the words "sold with full competition at very full and dearer prices," "Persian Gulf pale, loose almonds, 90s. to 95s. per cwt.; good brown almond, 80s.; and darker ditto, 55s. to 67s. 6d. Forty boxes of another lot sold at 47s. 6d. up to 70s. per cwt., the finer qualities being good pinky with loose almond, but more or less heavy with ground mica. The bulk of the purchases were for the United States." Is it possible that British buyers will not give the price demanded for good asafetida in tears, and that those of the United States will?

Again, in the *C. & D.*, April 22, 1899, page 654, under Asafetida, I find small sales of two to three case lots have been made at 80s. and 87s. 6d. per cwt. for fine free almonds. With two sales during this year of almond or tear asafetida, will it still be maintained that the drug is not an article of commerce, or was 80s. to 95s. per cwt. paid for almonds—i.e., tears—paid for a drug consisting of alabaster or gypsum coated with asafetida? I can hardly think buyers at that price could have been so deceived. It is generally admitted (*C. & D.*, December 16, page 988) that the drug is very little used in medicine. During ten years behind the counter I only remember selling the tincture twice—once to an army doctor who was going to administer it to a supposed malingeringer, and the other time for a woman suffering from

hysteria. Surely, therefore, there should be a sufficient supply of the tear at high prices for medicinal use.

Mr. Umney has, however, opened up a very important question. There is no doubt that analysts unacquainted with the commerce of drugs may form very erroneous conclusions. It does not follow because a chemist keeps several qualities of drugs in stock, that therefore he uses the lower grades in the prescriptions he dispenses. For instance, benzoin is used in varnishes and for incense, jaborandi for hair-washer, and almond oil for the same purpose, quassia for killing insects in gardens, asafoetida for horses, testing draics, and other purposes, and it is not necessary that they should have for these purposes so high a degree of purity as that required in medicine. There is therefore a necessity for an average or normal standard of purity of drugs for trade-purposes. The Government that protects the public by the Sale of Food and Drugs Act should also furnish a legal standard by which the provisions of that Act could, without injustice to the seller, be carried out.

Dr. Attfield has already distinctly stated that although the Pharmacopœia is quoted in law courts as a standard for the purity of drugs, the Pharmacopœia is not a legal standard (except so far as the drugs ordered by physicians in their prescriptions are concerned). The sooner, therefore, the Government appoints a committee of analysts and pharmacists to agree upon a normal or average standard of purity for drugs used for technical and domestic purposes, the better for both the public and pharmacists, and the more satisfactory will the reports of analysts and the working of the Act become.

A certain number of drugs vary exceedingly in purity from circumstances beyond the control of any Act of Parliament in this country, such as araroba, asafoetida, galbanum, scammony, aloes, &c., and it would doubtless be more satisfactory if no crude drugs of this class were admitted into the Pharmacopœia, but only strained or purified preparations. In the case of asafoetida, which might lose a certain amount of volatile oil during the process of straining, there would be no difficulty in adding the oil (distilled from the impure cheaper drug) to the tincture or pills in which the strained drug is used.

At present it would be only fair to chemists for the analyst or inspector to ask for drugs of B.P. strength or purity before judging them by that standard, and wise for the chemists to label samples of drugs as "B.P." or "Not B.P.," according to the purpose for which they are required.

Sevenoaks, December 19.

E. M. HOLMES.

SIR,—Although the paper by Dr. Martin and myself has not yet been printed in the *Analyst*, I should like to set right one or two points in your report of the paper on "Asafoetida," read before the Society of Public Analysts. First, as regards "intentional adulteration" I never for a moment supposed that the drug was tampered with after importation, but it is clear that when collected it is mixed with stones (alabaster) which simulate in appearance the gum-resin itself. When a demand for a purer asafoetida is created, no doubt more care will be taken in its preparation. I am glad to see that Mr. John Umney (*C. & D.*, December 16) agrees with me in suggesting that, as far as the tincture is concerned, the difficulty can be overcome by working with such a quantity of asafoetida as to produce a tincture yielding approximately 12 grammes of solid matter per 100 c.c. As regards the gum-resin, in the discussion which followed the paper I suggested that, if any samples were examined under the Food and Drugs Act, the standard given in the B.P. was too stringent to be applied for the present, as I do not believe that even isolated consignments of the drug are to be found which would fulfil the B.P. requirements; it is certainly impossible to obtain any that is strictly B.P. in quantity. I therefore suggested that, for the time being, a lower standard should be adopted for medicinal purposes—namely, ash not to exceed 20 per cent., and alcohol-soluble matter not to be less than 50 per cent. Asafoetida coming up to these requirements is available, and if this were done for a year it is very probable that the matter would right itself without friction. If pharmacists, when ordering asafoetida from their wholesale houses, would ask to be supplied with gum answering the B.P. requirements, or, failing that, with gum corresponding to the above-suggested standard, much more real good will be effected than by a few isolated pro-

secutions. I would add that I was reported to have said that I had examined a sample of gum asafoetida containing only 7 per cent. of ash. This is not so. I have not personally examined any sample of gum as imported giving less than 26 per cent. of ash.

Exeter, December 20.

Yours truly,
O. G. MOOR.

The Southwark Thefts.

SIR,—In your report of the police-court proceedings of the robbery at Messrs. Davy, Hill & Co.'s we notice you state that Lardent sold the cod-liver oil to a wholesale firm in Mitre Square. As the only firm of wholesale druggists in Mitre Square, we beg to state that we did not buy the oil from the man Lardent; we have never had any dealings with him, and do not know him in any way.

We remain, yours truly,

HORNER & SONS.

Mitre Square, Aldgate, E.C., December 15.

Mr. Boot on Companies.

SIR,—I should like to be allowed to reply to the personal allusions in your journal of December 18, seeing that you have mentioned me by name.

With respect to "Xrayser's" remarks, to the effect that the chemists "could hardly do better than take a cutting of Mr. Boot's remarks and read them to the Lord Chancellor," I need scarcely point out that what I said was directly opposed to the qualified-directorate idea taken in its entirety. What I allow is that a proportion of qualified chemists on the directorate is advantageous, but I was careful to show that there is no example of a large drug company having been successful when the whole of the directorate was composed of qualified chemists alone.

My idea, as I stated at the meeting, was that a seat on the directorate should be the reward of trained men who had worked for us in different departments for years. Therefore, our chemists' department being by far the largest, it would in proportion be most largely represented on the directorate. The late Michael Conroy, of Messrs. Evans & Co., as far as I am aware, was not a qualified chemist, and therefore unable to sell a halfpennyworth of red precipitate over the counter. Yet he filled the position of President of the Liverpool Chemists' Association, and was a man who, if he had been in our employ, would have been offered a seat on the board. In fact, a seat on the directorate should imply special abilities and qualifications apart from any financial support the director might be able to offer to the company, and also apart from the hall-mark put upon him by possessing the Minor or Major qualification.

But, above all, the directorate would have to comprise a man of general business and financial capacity such as is rarely if ever found in the ranks of purely qualified chemists, not because of incapacity, but simply because the routine of an ordinary chemist's business cannot, in the nature of things, afford a sufficiently wide range of business experience.

Your own remarks as to the anomaly of our company selling poisons is quite beside the mark, when it is reflected (with all sympathy for the widow) that the widow of a chemist in a northern town, for some years after his death, managed about twenty shops, and that her daughter succeeded her, so that the anomaly, if it exists, is in the widows' clause.

For my part, I can see no anomaly. Granted a company of which every member of the directorate was a qualified chemist, it would be amusing to see all the directors together, as being the company or representing the company, grouped around the counter selling a halfpennyworth of red precipitate. If they did not do so they would have to leave the sale of it to a qualified employé just as we do.

Yours faithfully,

Nottingham, December 19.

JESSE BOOT.

The Benevolent Fund.

SIR,—In perusing your pages that contained the account of the above fund and its supporters, as well as looking over the circular sent (I suppose) to all chemists of the land, I was startled with the prominent line on that circular containing the following words: "Over ten thousand who contribute nothing towards" (the fund)!!

Are these ten thousand chemists applied to in earnest? Really, I am ashamed to be on the rolls of the profession, although in business over sixty-two years—poor North-Welsh as I am—that so many cannot or do not spare five or ten shillings a year to this very excellent charity.

The Government seems to be feeling for the aged workmen, and should not a fraternity, many in which are rich and able support so benevolent an object?

We find in your will-column many chemists who die worth their thousands; but very few bequeath anything to this worthy institution. I hope this will be taken by your readers in the good feeling it is written.

Yours, &c.,

A NORTH WALES CHEMIST. (131/99.)

Seasonable Appreciation.

SIR,—I duly received the copy of your DIARY for 1900, and I have already sent it to non-subscribers in the neighbourhood. Our next colleague, some five miles distant, said at once, "You English are a great nation," for on the table was also the German *Pharmaceutischer Kalender*, and the difference was striking in the extreme.

A BADEN APOTHEKER. (192/26)

SIR,—In reply to the note at the foot of page 917, I can say "ditto." I have subscribed twenty-two years and competed for one of your prizes twenty-five years ago. I can not afford to be without the *C. & D.*

Yours truly,

Manchester, December 5.

E. YATES.

SIR,—I am very pleased with THE CHEMISTS' AND DRUGGISTS' DIARY, which alone is worth the subscription on account of the formulae it contains.

Yours,

WARD. (194/50.)

Dispensing Notes.

This section is intended for the elucidation of dispensing difficulties. Subscribers and their employes may contribute to it, criticising any of the following notes or contributing notes on prescriptions which they have found to be of real interest.

A White Precipitate in a Mixture.

SIR,—Could you inform me as to the reason why the following prescription turns milky white when the liq. am. acet. is added?—

Liq. ferri perchlor. ...	...	...	3ij.
Spt. æther. nitrosi ...	...	...	3ss.
Ac. phosph. dil. ...	...	...	3iss.
Liq. ammon. acet. ...	...	...	3j.
Glycer. ...	...	...	3j.
Aq. chlorof. ad ...	...	...	3vj.

M.

Sig.: 3j. t.i.d.

Yours truly,

J. D. (125/8.)

[Ammonio-phosphate of iron is precipitated by the ammonium acetate.]

Urotropin.

SIR,—If Mr. Parry is correct in his note, as we do not doubt he is, how is it that we pay 1s. 6d. per oz. for hexamethylene-tetramin, when ordered under that name, and the same wholesale house lists urotropine at 2s. 9d. per oz.? There must be a difference somewhere.

Yours very truly,

M. & W. (204/41)

["Urotropine" is a registered name, and the English agents put it at 2s. 9d. per oz., so that "M. & W." buy it cheap. It is hexamethylene-tetramine, or formin, and may be sold by anybody under its chemical name, and presumably more cheaply. It is made by the interaction of ammonia-gas and formaldehyde. Saliformin is, as Mr. Parry explained the salicylate of formin, and bears the same relation to formin as salipyrin does to antipyrin.]

Question of Charge.

Hypo (195/42) asks what would be a fair charge to account for the following:—

Sodii salicyl. (nat.) ...	...	...	3vj.
Potassii iodidi ...	...	...	3iv.
Potassii citratis ...	...	...	3vj.
Aq. ad... ...	...	...	3vj.

M.

Sig.: 3ij. ex aq. quartis horis.

The price works out at 6s. upon the Liverpool price-list basis.

Miscellaneous Inquiries.

We reply to subscribers and their employes only upon subjects of interest to other readers generally. When more than one query is sent write each on a separate piece of

paper. When a sample accompanies a query full particulars regarding the origin and use of the sample must be given, and it must be distinctly labelled. Queries are not replied to by post, and those sent anonymously are disregarded.

171/35. *Nocturne*.—Working Theatrical Limelight.—We remember having seen a book on stage-management in which the subject was incidentally dealt with, but cannot recall the title. The limelight is not very difficult to manage: a few experiments with an optical lantern will show you the possibilities. The colours are produced by placing coloured glass or gelatin in front of the lantern-lens.

180/47. *A. G.* (Genoa).—Bismuth Hair restorer, like all metallic hair-restorers, is merely a surface dye, and if the hair has not been recently washed so as to free it from grease the dye comes off through friction. It also appears that the colour that the bismuth mixture imparts to the hair varies somewhat with the individual. The formula given in "Pharmaceutical Formulas" has been carefully worked out, and found to do what is required under average conditions. We think, therefore, that you should try another dye of organic origin.

200/21. *Oxonian*.—(1) Eighty pounds is not an excessive premium for a four-year apprenticeship in a good-class business. (2) The apprentice's master generally advises his apprentice as to the course of study he shall pursue. (3) We have never heard of masters giving pocket-money to their apprentices unless there is an agreement to return part of the premium in that way.

177/36. *Ink*.—Flavouring-powders for Cakes.—These are made by triturating the oils of caraway, lemon, and orange with sugar in the proportion of 3ij. of the oil with 1 lb. of sugar.

158/44. *Distemper*.—The Distemper-pills for Dogs which are described as infallible are composed of chlorate of potash, 8 gr. in each pill.

166/8. *Gapes*.—(1) Powder for Gapes.—This is a mixture of camphor and chalk, but we presume most of the camphor has evaporated from your sample, as it reaches us with only a trace in it. (2) When making Sulphur Saline by the addition of dried hyposulphite of soda, the quantity added should not exceed 5j. to the pound of saline.

174/18. *Shamrock*.—The Mange ointment is composed of black sulphur (1) and soft soap (2). The directions "Shamrock" sends are: "Rub a little on the affected part with the hand, then wet with water and again rub till a lather is formed."

175/53. *Nemo*.—Your sample of "French" coffee contains a minimum of coffee. We do not recognise the components.

162/3. *Li. H.*—The antiferment used for cider is calcium bisulphite.

188/64. *R. L.* sends a sample of septic gelatin cloth for covering hams and bacon, and asks us to tell him how it is made. A strong solution of gelatin is first prepared, coloured, and saturated with salt. The solution is then spread on gauze or calico by a machine such as is used for plaster-spreading, and on a small scale by pouring the gelatin into shallow dishes which have the bottom lined with gauze.

170/51. *Scour*.—The following represents the sample of Scour-powder for Cattle, which you say is "very efficacious":—

Powdered oak-bark ...	...	...	2 oz.
Powdered chalk ...	...	...	2 oz.
Powdered ginger ...	...	...	$\frac{1}{2}$ oz.

Mix.

The dose for a cow is three or four tablespoonfuls twice daily.

186/20. *Kong. Beng.*—The Starch-enamel is, as you opine, composed of French chalk and powdered soap. The recipe in "Pharmaceutical Formulas," page 307, is practically identical.

179/43. *T. M.*—The powder used against the fungoid affections of tomato-plants is sulphate of iron, coarsely powdered, and mixed with about a half part of charcoal.

186/24. *Setay*.—Tooth-powder, as your sample:—

Pulv. camphor. ...	...	...	$\frac{1}{4}$ oz.
Pulv. saponis...	...	...	1 oz.
Cretæ precip....	...	...	4 oz.
Pulv. irisid ...	...	...	1 oz.

M.

152/16. *Alpha*.—The Cough-electuary for horses "of great repute" resembles the following:—

Camphor. ...	...	...	3j.
Ext. belladonnæ ...	...	...	3j.
Pulv. resinæ ...	...	...	3j.
Pisic liq. ...	...	...	3j.
Glycerini ...	...	...	q.s. ut fiat electuarium

The above quantity is one dose. The horse's tongue is pulled forward and the electuary smeared on the thick portion.

130/29. *W. F.*—It is not possible to exactly analyse the Horse-colic Mixture you send. It contains, however, turpentine and laudanum as active ingredients. From this and the examples given in "Veterinary Counter-practice" you will be able to construct a formula.

170/40. *E. M. H.*—You seem to have overlooked the fact that the Isle of Man Legislature is now busy over a Pharmacy Bill.

200/34. *Physic*—You can get full particulars regarding the L.S.A. Diploma by addressing the Secretary to the Court of Examiners, Society of Apothecaries, Blackfriars, London, E.C.

193/74. *Rodent*.—Oil of anise is the perfume which is said to be most attractive to rats and mice. See DIARY formulae.

171/45. *Keswick*.—The interpretation of Gould's Hop Compound recipe (which is what you send) is given in "Pharmaceutical Formulas," page 503.

164/57. *Tragac*.—Can you send us a sample of the powder which, dissolved in water, is used for cleaning white hunting-breeches?

162/23. *J. C. & Co.*—You can get all kinds of aniline dyes from Messrs. Williams Brothers & Co., Hounslow, Middlesex.

167/13. *W. I. P.*—Slake Varnish.—There is a formula for this in the 1900 DIARY, page 268, and another in the C. & D., June 3, page 900.

186/8. *Crumpall*.—We cannot trace your sample of asthma-cure.

185/5. *Mizpah*.—Naphthalene is insoluble in cold water, and therefore not suitable for putting in a w.c. tank as a disinfectant. Beta-naphthol, being slightly soluble in cold water, would perhaps suit your purpose.

182/23. *Oxon*.—We have no formula for non-separable hair-wash containing petroleum.

187/10. *F. E. D.*—Mustard Bran Poultices for cold in the chest are prepared in the same way as linseed poultice, a formula for which was given in the B.P. 1885.

186/63. *E. L. T.*—Chemistry of the Laundry.—The only book which at all fills your requirements is Brannet's "Practical Scourer and Garment-dyer" (Sampson Low).

185/49. *H. C. W.*—Quantity of malt to use for beer or stout.—See C. & D., June 17, page 974, and July 22, page 137.

185/52. *Verax*.—(1) You cannot make a representative expressed oil of mustard by mixing essential oil of mustard with linseed oil. (2) In making aromatic waters by shaking the various essential oils with hot water and filtering through kaolin it is usual to allow one drop of oil to 1 oz. of water.

194/6. *J. G. W.*—(1) Embrocation.—See C. & D., December 16, 1899, page 1002. (2) Pile-powder.—See THE CHEMISTS' AND DRUGGISTS' DIARY, page 268. (3) Obesity-mixture.—The liquid extract of bladderwrack (ext. fuci vesiculosi) is the basis of this class of medicine. (4) It is illegal to advertise gonorrhœa-mixture. See THE CHEMISTS' AND DRUGGISTS' DIARY, page 217.

206/73. *G. A. W.*—The following are the United States medical schools recognised by the Royal College of Surgeons for professional education:—

NEW YORK.—The University; the College of Physicians and Surgeons; Bellevue Hospital Medical College.

PHILADELPHIA.—The University of Pennsylvania; Jefferson College.

CAMBRIDGE, BOSTON.—Harvard University.

CHICAGO.—Rush Medical College.

MICHIGAN.—The University.

SAN FRANCISCO.—Cooper Medical College; the University of California.

NEW HAVEN, CONNECTICUT.—Yale University.

205/45. *C*.—We do not follow the fluctuations of the shares sufficiently closely to advise on this matter.

160/29. *Asculapius*.—(1) Cleaning Buckskin Boots.—Pipeclay alone is often used, but the following, which was formerly much in use for leather breeches, is better:—

Pipeclay ...	...	...	1b.
Spanish white ...	...	...	3viij.
Flake-white ...	...	...	3vj.
Precipitated chalk ...	...	...	3iv.
Spermaceti ...	...	...	3vj.
Lard ...	...	...	3viij.

Melt the spermaceti and lard together, and with them mass the mixed powders.

(2) The general directions for Egg-promoting Spices are to add one teaspoonful of the spice to the food of eight or ten fowls every other day with the morning meal.

190/69. *Nolens Volens*.—(1) Liq. bismuthi sedativus is a speciality of Messrs. Giles, Schacht & Co; (2) Rouse's "Dictionary of Synonyms," 1s. (61 Charlotte Street, W.); (3) Aq. Ment. Pip. Conc. (1 to 40):—

Oil of peppermint ...	...	...	3iv.
Alcohol (99-per-cent.) ...	...	...	3j.

Dissolve and add—

Alcohol (70-per-cent.)	3iv.
----------------------------	-----	-----	------

Shake up with—

Kieselguhr	3j.
----------------	-----	-----	-----

And add gradually—

Distilled water	3viij.
---------------------	-----	-----	--------

Shake at intervals for three days, filter, and make up to 3viij with alcohol (60-per-cent.).

(4) Aq. Camph. Conc.—Dissolve camphor in alcohol (90-per-cent.) in the proportion of 140 gr. to the ounce, and of this add $\frac{1}{2}$ oz. to each gallon of water.

Trade Report.

The prices quoted below are the bottom prices obtained for bulk quantities by importers and manufacturers, who do not supply retailers. They are in many cases exclusive of various charges.

42 Cannon Street, London, E.C.: December 21.

THE penultimate week of the year is generally dull in business, but the week now closing has been less bright than usual. The appreciation of money retards business, and we seem now to be beginning to feel the effects of the war, but until the New Year that factor will not stand out clearly. A few important changes in values, especially on the up-grade, are noted below:—

Higher	Firmer	Easier	Lower
Acid, pyrogallie	Menthol	Acid, citric	Copper
Acid, salicylic	Opium	Acid, tartaric	sulphate
Cinchona		Oil, linseed	Senna
Lime-juice		Pepper	
Potash,			
bichromate			
Potashes			
Phenacetin			
Quinine			
Salicylates			

The following drugs, &c., have arrived at the principal ports of the United Kingdom from December 14 to 20, both inclusive:—Calumba, 16; camphor, 2; cardamoms, 37; castor oil (Ital.), 25; chamomiles, 6; cochineal, 64; cod-liver oil, 42; gum arabic (Trieste), 10; insect-flowers, 4 (powder) 227; kola-nuts, 7; menthol, 5; opium, 10; quinine (casks), 4; senna (Tiny.), 778; wax, bees', 220 (W. C. A.), 147.

Who Wants to Go to the Front?

Mr. A. H. Rolls, Chairman of the Mincing Lane Relief Fund, has been asked by the Lord Mayor to inquire if any who subscribed to the fund are desirous of joining the Imperial Volunteer Corps for South Africa. Will those in the Lane who read this, please communicate with Mr. Rolls as to the desirability of calling a meeting about the matter?

A Drug-auction.

A short drug-sale was held to-day prior to the senna-auctions, and when the selling broker, Mr. Donald Gray (Messrs. D. Gray & Sons), mounted the rostrum, he announced that it was not his personal wish to have a sale, but, in view of the fact that other brokers were offering senna and wax, his importer had instructed him to offer the goods, and he was therefore compelled to do so. The sale, consisting of a few packages of cardamoms and calumba, was then proceeded with, after which Mr. Davis (E. Davis & Co) was about to sell his senna, when Mr. A. Ziegele called attention to the fact that the senna had not been properly classified, and asked what would be the position of the buyers in the event of claims being sent in, to which Mr. Davis replied that the buyers might write to the wharfingers pointing out that senna catalogued as sonnd had been found damaged, and that they would be held responsible for any error.

Mr. Ziegele contended that the home buyers were in a different position to the export buyers, and could look after themselves. The senna, he said, had been rushed forward much too quickly, in order to be in time for the present sale. After a desultory discussion, Mr. Davis decided that the senna should be sold "tel quel"—i.e., "taken as it is," and this was done.

At 2 o'clock three brokers offered beeswax at Messrs. Hale & Son's room, 10 Fenchurch Avenue, E.C.

A South African Shipping Union.

It was stated in the *Times* of December 15 that the directors of the Union Steamship Company and the Castle Mail Packets Company have agreed to a scheme of amalgamation (which is to be submitted to their respective shareholders), with a view to the more economical and efficient working of the companies. The mail contract, which the companies hold jointly, is one of the principal reasons for the amalgamation. Inquiries at headquarters have elicited no information one way or the other. The report, however, appears to be well-founded, and it may affect the South African "ring."

Java Government Cinchona.

The quarterly report concerning the Government cinchona-plantations in Java for the three months ending September has just been issued. The weather had been fairly dry, with very little night frost, and owing to these favourable climatic conditions and abundance of labour, the work was carried on uninterruptedly. In the Nagrak district a plague of caterpillars has again caused a considerable amount of damage, but in other districts the plantations have suffered very little from insect pests. The total harvest during the September quarter was about 800 tons of bark, of which 520 tons had been shipped to Holland and 100 tons delivered to the Bandong quinine-factory; the balance of about 170 tons will also be principally sent to the Bandong works. With regard to the experimental gardens at Tirtasari, it was found that where the ground had been thoroughly worked and manured, the yield of sulphate of quinine had increased considerably, in some cases as much as from 4 to 5½ per cent. The gross revenue from six auctions amounted to about 18 000*l.* and the net profit on the shipments to Holland out of the 1898 harvest to about 8 000*l.* The number of plants in the nurseries was 1 775 000, of which 1 435 000 are Ledgeriana, 315 000 Succirubra, and 25 000 hybrids; in the plantations the total number was 2 474 000—viz., 1 550 000 Ledgeriana, 439 000 hybrids, 437 000 Succirubra, and 48 000 Officialis.

Heavy Chemicals.

[These prices are for other market-centres than London.]

The general demand for products in the heavy-chemical market is at present well kept up, although seeing that the holidays are approaching and that stock-taking is commencing to engage attention, some quietness in the trade is quite to be expected now. Stocks still keep low and prices are very firm, but without any specially marked changes.

ALKALI PRODUCE.—Bleaching-powder and caustic soda are in brisk request, and still higher are quite possible. Caustic soda is very scarce, in fact practically unobtainable for prompt delivery. Ammonia alkali very firm, and in demand at unchanged rates of 4*l.* 7*s.* 6*d.* to 4*l.* 12*s.* 6*d.* per ton, free on rails in bags. Soda crystals are in fair request: Tyne, 57*s.* 6*d.*; Liverpool, 62*s.* 6*d.* Soda ash, caustic and carbonated, unchanged, at 4*l.* 5*s.* to 5*l.* per ton, but with advancing tendency. Bicarbonate of soda, in 10-cwt. casks, 6*l.* 7*s.* 6*d.* to 6*l.* 15*s.* per ton, and 6*l.* 17*s.* 6*d.* to 7*l.* 2*s.* 6*d.* per ton in 1-cwt. kegs, f.o.b., Liverpool Yellow prussiate of potash is rather quiet just now, but the price for best Lancashire makes stands steadily at 8*d.* to 8½*d.* per lb.

SULPHATE OF AMMONIA is weak at the following figures, which are rather lower than those last given:—Beckton, 11*l.*; Beckton terms, 11*l.*; Hull, 11*l.* to 11*l.* 2*s.* 6*d.*; London and Leith, 11*l.* 2*s.* 6*d.* to 11*l.* 3*s.* 9*d.* January to March delivery, 11*l.* 10*s.*

BENZOLS are dull; 90-per-cent. have dropped again to 8½*d.* 50-per-cent. stand at 10*d.* to 10½*d.*

BARIUM-PRODUCTS are in brisk demand, and prices are firm, with advancing tendency. Blanc fine, precipitated sulphate of barium in paste-form, 7*l.* per ton in usual casks free on rails. Chloride of barium, best ordinary refined crystals, 7*l.* 2*s.* 6*d.* per ton in bags f.o.b., and 6*l.* 17*s.* 6*d.* to 7*l.* free on rails; casks, 7*l.* 2*s.* 6*d.* to 7*l.* 5*s.* Hydrate of barium, purest crystals, 12*l.* to 13*l.* 10*s.* per ton, in stock in 6-7-cwt. casks, according to quantity, and with advancing tendency. Sulphide of barium very firm, at 5*l.* 15*s.* to 6*l.* per ton in casks on rails.

LEAD SALTS very firm, with fair demand. Sugar of lead, white, 24*l.* 10*s.* per ton, less 2½ per cent. Glasgow; and sugar of lead, brown, 19*l.* 15*s.* per ton, less 2½ per cent. Glasgow. Nitrate of lead, 23*l.* 10*s.* per ton, less 2½ per cent. Glasgow.

Liverpool Market.

Liverpool, December 20.

RUSSIAN ANISEED is offering sparingly at 20*s.* to 22*s.* 6*d.* per cwt.

CASTOR OIL.—Good seconds Calcutta are quoted 2½d. to 2½½d. per lb., at which there have been small sales. First-pressing French is in more inquiry at 2¾d. to 2½d. per lb.

GUM-ARABIC SORTS.—A parcel has changed hands at 62s. 6d. per cwt.

AFRICAN GINGER.—Stocks are again reduced, and the only holder quotes 27s. 6d. per cwt.

BICHRIMATE OF POTASH.—Makers have advanced price to 4½d. per lb.

BEEWAX.—Chilian has been in considerable demand, and about 110 sacks have changed hands at from 7l. 2s. 6d. to 7l. 10s. per cwt.

BALSAM COPAIBA.—Market is bare of cloudy Maranham, and fresh arrivals would sell readily.

QUILLAYA.—Small sales have been made at 13l. 5s. to 13l. per ton, the latter figure for a parcel of about 12 tons.

HONEY.—For good liquid Californian 50s. per cwt. is wanted. Chilian is unchanged.

SPERMACETI.—An arrival of 27 cases refined Chilian sold at 1s. 3½d. per lb., and 85s. per cwt. has been paid for crude.

German Drug Market.

Hamburg, December 18.

Business is now very quiet on the drug-market, and no revival is looked for till the turn of the New Year. The navigation into the interior of Germany is still closed, and the merchants are busy with stock-taking.

CAMPHOR, REFINED, is slow of sale just now, with second-hand sellers at about 360m. per 100 kilos.

CONDURANGO-BARK is steady at 190m. per 100 kilos.

ERGOT OF RYE is unchanged, but firm, at 460m. to 475m. per 100 kilos. for good quality.

HONEY is firm, but quiet. Chilian, Pile III., is quoted 48m. per 100 kilos.

MENTHOL is almost unchanged at 21m. per kilo.

LYCOPodium is firmly held at 410m. per 100 kilos.

QUININE is firmer. Second-hand holders now ask 39m. to 39½m. per kilo.

TURPENTINE OIL is dearer. American, spot, is held for 78m., January-April shipment 79m. per 100 kilos., delivered here.

SPERMACETI.—Firmly held at 290m. per 100 kilos.

CARNAUBA WAX.—Steady, at 85m. to 128m. per 100 kilos., according to quality.

ESSENTIAL AND OTHER OILS are quite unchanged since last week.

American Market.

New York, December 12.

Business is good, and above the average in volume, in spite of the approach of the holiday season. Values are well maintained, and the general tone of the market is strong.

BALSAM PERU is easier, on account of new arrivals; \$1.60 to \$1.70 per lb. is asked, according to quantity and holder.

BEEWAX has sold freely at 28c. per lb., and values are firmer at 28½c. to 29c. for ordinary pure.

BUCHU-LEAVES are in a strong position, and business is confined to small parcels, quotations being firm at 30c. to 33c. per lb. for ordinary "shorts."

CASCARA SAGRADA.—Holders on the Pacific are firmer in their views, and quotations show a fractional advance. Local dealers are still offering at 5½c. to 6½c., according to quality.

ERGOT.—Russian is easier, in sympathy with foreign markets, and quotations show a decline to 53c. to 55c. per lb. Stocks are still small.

GOLDEN-SEAL (HYDRASTIS) is offering more freely from the producing points, but spot values are unchanged at 60c. to 65c. per lb.

IPECACUANHA.—Rio is a trifle easier, following the decline in the London market. Local holders, however, anticipate a reaction, owing to the position of the article, and quotations are nominally unchanged at \$3.45 to \$3.60.

PODOPHYLLUM-ROOT is firmer, consequent on the higher values asked at the producing points. Local holders have advanced prices to 4½c.

PEPPERMINT OIL is quiet, and in the absence of demand present quotations can be shaded. Western is quoted at 90c., and New York at 95c.

SARSAPARILLA.—Mexican is in very light supply, and sales have been made as high as 10½c. per lb. The market is firmer, and local holders ask up to 12c.

SEENA-LEAVES continue scarce and firm; 12c. to 15c. per lb. is asked for natural Alexandrian, and 12c. to 20c. for Tinnevely.

QUININE has advanced, in sympathy with the improvement in bark, but the market is quiet. Manufacturers now quote 30c. to 32c., and second hands 29c. to 30c.

Cablegrams.

HAMBURG, December 20 12.56 P.M.—Refined camphor in second hands is now at 355m. per 100 kilos. Carnauba-wax

and turpentine are both in a firm position, the latest price for the later being 78½m. per 100 kilos.

SMYRNA, December 20, 11.20 A.M.—Owing to a severe frost the opium market has developed a firmer tendency.

NEW YORK, December 21, 2.50 P.M.—The general tone is quiet. Ipecacuanha is easy, at \$3.40 per lb.; but sassafras bark or root is scarce, at 13½c. per lb. Truxillo coca-leaves are higher, 30c. per lb. being the present figure. Mexican sarsaparilla is scarce, and selling at 13c. per lb. Ergot and Ouraça aloes are both firmer; ergot is now 55c. per lb., and the aloes is 5c. per lb. Salicylic acid has advanced 6c. per lb.

ACID, CITRIC.—English crystals can now be had at 1s. 2d. per lb., being easier.

We hear from Messina, under date of December 14, that the production of concentrated lemon-juice and citrate of lime is backward, owing to drought, and that the quantity of bad lemons which must be cut in June is larger than anticipated. It is therefore presumed that the production will be more abundant. Actual selling prices are low, and sellers are willing to undertake forward delivery at current figures—viz., 13l. 10s. per pipe, f.o.b.

ACID, PYROGALLIC.—Owing to the advance in galls, makers have advanced their prices 6d. per lb., and now quote 5-lb. tins at 7s. 6d., with proportionate reductions for larger quantities. Schering's price is unchanged.

ACID, TARTARIC, has an easier tendency at 1s. 0½d. per lb. for English on the spot, and 11½d. for foreign.

ALOES.—Socotrine of good quality can be had at 72s. 6d. per cwt., being slightly easier. An arrival of over 100 cases Cape has taken place, which will probably be offered at the next drug-auctions. It is reported that this is the remainder of the stock at the Cape.

ANISE, STAR.—Quiet, at 92s. per cwt., c.i.f., for arrival. There is a little to be had on the spot at 100s.

ARROWROOT.—A parcel of good St. Vincents at auction on Wednesday sold at 4½d. per lb.

BELLADONNA-ROOT has still an advancing tendency, good medium being quoted at 40s. per cwt., c.i.f.

BUCHU.—Small sales of round green leaf have been made this week at 11d. per lb.

CALUMBA.—In auction a bid of 25s. 6d. per cwt. was refused for medium to bold natural root, the parcel being bought in at 30s. per cwt.

CAMPHOR.—Unchanged, but firmly held, especially in Hamburg. Lower prices are not looked for this year, and orders for German refined are only booked subject to confirmation at 1s. 9d. per lb., at which figure second-hand holders are willing to sell in small quantities. Crude is quiet and unchanged, with a small inquiry for spot parcels.

CANTHARIDES.—Russian flies have recently been advanced to 2s. 3d. per lb., c.i.f.

CARDAMOMS.—In auction 11 cases were offered and 10 sold at a slight advance, good medium to bold pale Ceylon-Mysore realising 3s. 6d. per lb., small to medium pale 2s. 10d., very small ditto 1s. 8d., splits and pickings 1s. 6d., and one case of seed 2s. 4d. per lb.

CHAMOMILES are again dearer, and nothing is obtainable under 90s. per cwt.

COCAINE.—Opinions concerning the future course of this alkaloid vary. Some think it has reached its highest point, while others say a rise is certain at the commencement of the new year. Meanwhile business in a well-known brand of hydrochloride has been done at a shade below 19s. per oz. to fulfil contracts. There are brands of less-esteemed make offering at 9d. to 1s. below this figure. Few contracts are being made at the moment, owing to diverse views as to that policy.

CINCHONA.—The last London auctions of the year were held on Tuesday, when 2,873 packages were offered by nine brokers, the bulk, as usual, consisting of East Indian bark. The demand, opened slow, but improved as the sales pro-

ceeded, and the greater portion sold at and after the sale at about 5 per cent. advance on the last Amsterdam auction-prices, the average unit being reckoned out at $1\frac{1}{2}$ d. per unit of quinine, against $1\frac{5}{16}$ d. at the last London auctions. There was good competition for the cinchonidine-yielding barks, and the unit obtained may be put at $1\frac{1}{2}$ d.

The following table shows the quantity offered and sold:—

Packages offered.				
East Indian cinchona ...	1,763, of which 1,311 were sold.			
South American cinchona ...	606	591	...	...
Java cinchona ...	386	263	...	...
Ceylon cinchona ...	118	81	...	...
	2,873	2,245		

The following were the approximate quantities purchased by the principal buyers:—

	Lbs.
The Brunswick factory ...	156,450
The American factories ...	73,982
The Mannheim and Amsterdam factories ...	70,445
Messrs. Howards & Sons ...	62,410
The Frankfurt-on-Maine and Stuttgart factories ...	24,885
The Paris factory ...	12,070
The Imperial quinine-factory ...	644
Druggists, &c. ...	2,686

Total amount of bark sold ...	408,572
Bought in or withdrawn ...	116,862

Total quantity of bark offered ... 525,434

The following prices were obtained:—

SOUTH AMERICAN.—Bolivian cultivated calisaya quill, 7d. to 8½d. per lb., and fine, 8½d. to 10½d. New Granadian (8 bales), 3½d. to 3¾d. Soft Colombian (28 bales), 1½d. Cuprea (131 bales), 2d. to 3¾d. per lb.

JAVA.—Ledgeriana: Natural stem chips, 3¾d. to 6¾d. rich ditto, 7½d. to 8d. and (9 bales) 10½d. per lb.

CEYLON.—Succirubra: Natural stem chips, at 3d. to 4½d.

EAST INDIAN.—Red: Natural chips, 3¾d. to 3½d.; shavings, 4d.; renewed, 3½d. to 3¾d. Crown: Natural chips and shavings, poor, 1½d. to 2½d.; ordinary to fair, 3½d. to 4½d.; good, 4½d. to 5½d.; and fine rich, 6d. to 8½d.; root, 7½d. Renewed. 3½d. to 4½d.; rich, 5½d. to 8d. Ledgerianas: Natural stem chips, 3d. to 4½d.

The shipments from Ceylon for the week ending November 23 were 25 178 lbs., and from January 1 to November 28, 591,355 lbs.

COPPER SULPHATE.—Lower, at 24l. 5s. per ton, spot; Liverpool, 25l. 10s. f.o.b.

GALANGAL-ROOT.—There are no supplies on the spot, but small sales have been made recently to arrive at 22s. per cwt., c.i.f.

GUM ARABIC.—Sourian sorts have been at slightly more inquiry and values are unchanged. O'ian soluble Persian unworked sorts have sold at 18s. per cwt.

IPECACUANHA is firmly held, with small sales of both Rio and Cartagena root at from 11s. 9d. to 12s. 3d. per lb. for good, and 8s. 6d. to 8s. 9d. respectively.

LIME JUICE is about 6d. per gallon dearer this week, nothing being obtainable under 2s. 9d. for raw West Indian.

LYCOPodium is quoted at 1s. 11d. per lb., c.i.f., for December-January shipment.

MANGROL.—Again firmer, holders reporting small sales at 10s. 6d. per lb. spot for Kobayashi crystals, and 10s. 3d. for Fasiana. For arrival the quotation is 11s. c.i.f.

OIL, COD-LIVER.—Quiet, but firmly held at from 77s. 6d. to 80s. per barrel c.i.f. A small sale of a well-known brand is reported at 82s. 6d. spot. Some agents report they have orders in hand, but cannot execute them even at 80s. They look for dearer prices in January.

BERGEN, December 16.—Business in Lofoten non-congealing oil is now slackening, owing to the end of the season. Stocks are, however, very small, and nothing is to be obtained under 75s. per barrel, f.o.b. Bergen. The exports from Bergen to date are 13,988 barrels, against 7,933 barrels at the same time last year.

OIL, PEPPERMINT.—For Japanese dementholised oil 3s. 10½d. per lb. spot is quoted, and for 40 per cent 5s. 6d. spot has been paid, and more money is now asked. American H.H. remains easy, with sellers on the spot at from 5s. 1½d. to 5s. 3d. per lb., according to quantity,

although importers ask more money. So-called "Wayne County" is 3s. 6d. to 4s. per lb.

OPIMUM.—The high prices now asked prevent business, and only small sales of manufacturing descriptions have been made at full rates. Persian is without change, but firmly held.

SMYRNA, December 8.—We have again to report a very active week, the sales amounting to 156 cases (on account of the United States), at an advance of nearly 2d. per lb. over last week's prices. As before mentioned, the bulk of the stock is in the hands of strong holders, who will not sell unless the market advances to 9s. and upwards. The opium in the hands of weak, needy holders is comparatively small, which in the present brisk demand for America will last another six or seven weeks. The arrivals to date are 2,296 cases, against 1,214 cases last year.

ORRIS-ROOT.—Without inquiry here, and prices remain as last quoted—viz, from 52s. to 55s. per cwt., c.i.f., for selected Florentine.

M. Antoine Chiris, of Grasse, informs us that he was not the moving spirit in the recent speculation in this article. Writing to us from Paris, he says: "I am absolutely opposed to the syndicate, and have always expressed the opinion that the prices were not in proportion to the size of the crop, and which, in spite of the syndicate's efforts, will probably come down shortly."

PHENACETIN.—The makers (with one exception) have raised their prices, both for B.P. crystals and powder, to 3s. 6d. per lb. net for 5-cwt. quantities, 3s. 7d. for 2-cwt., and 3s. 8d. for 1-cwt. lots, with smaller quantities at proportionately higher rates. In second hands there are offers at 1d. less than the above prices. Buyer's make is unchanged at 5s. 6d. for wholesale quantities.

POTASH BICARBONATE has been advanced to 5d. per lb. spot, being ½d. dearer. Business has, however, been done in one quarter at 4½d.

POTASHES are again dearer at 27s. 6d. per cwt. spot, and pearl 34s.

QUININE.—Dearer. The advance in the unit at the London bark-sales induced German makers on Wednesday to advance their prices for sulphate in 1,000-oz. tins to 1s. 3½d. per oz., but they are not free sellers at this figure. On Friday and Saturday of last week a considerable business was done in second hands (some 140,000 to 150,000 oz.), being sold at 1s. 2½d. spot, and 1s. 2¾d. for March delivery, the bulk of the business being at the latter figure. The week opened at a further advance, 1s. 3d. to 1s. 3½d. being paid on the spot, and 1s. 3½d. to 1s. 3¾d. for March in moderate quantities. Since then the market has been easier, with sellers at 1s. 2¾d. spot, and March delivery at 1s. 3½d. per oz.

SALICYLATES.—Owing to the rise in carbolic acid makers have advanced their prices 2d. per lb. on the acid, and 5d. on the soda preparations, but will not book orders for more than half-ton lots. Salicylic acid is now 1s. 11d. for powder, and 2s. 1d. for crystals in small wholesale lots; physiologically pure, 3s. 11d. Salicylate of soda, powder, 2s. 4d.; crystals, 2s. 10d.; and pure, 3s. 10d. Contracts for delivery over six months at proportionately less rates, with falling clause.

SCAMMONIUM.—Small sales of Syrian have been made at 15s. per lb.

SENNA.—An auction of 785 bales Tinnevely senna was held to-day, when everything was practically sold at steady rates for good green, but common and inferior grades were quite ¼d. to ½d. per lb. lower. The quality of the bulk was very inferior, a large proportion consisting of "jungle" senna. The following prices were paid:—Medium to bold green leaf, 4½d. to 5½d. per lb.; fair to good medium leaf, 3½d. to 3¾d.; small to medium, part brown and yellowish, 2½d. to 3d.; small spotted brown and damaged, 2½d. to 2¾d. Pods realised 3½d. per lb. Privately sales of old broken Alexandrian leaf have been made at 5d. per lb.

SHELLAC.—Quiet in auction, when 150 cases second orange were offered, and withdrawn at 66s. to 67s. per cwt. for good to fine. Privately TN orange is quoted on the spot at 62s. 6d. for fair, and small transactions have been put through at this figure.

SPICES have been quiet, as is usual at this time of year. Pepper and Cloves are rather easier, but otherwise there is

no change in quotations. Public sales were held on Wednesday, but they were of no importance. Dull brownish rough Cochín *Ginger*, slightly wormy, was bought in at 25s. per cwt. Penang *Cloves* were withdrawn at 6d. per lb. for middling quality. Zanzibar are lower at 3½d. per lb. for January-March delivery, and at 3¼d. for March-May. East India *Capsicums* sold at 33s. per cwt. for cherries; long on stalk being bought in at 30s. *Pimento* partly sold at 3½d. per lb. for ordinary. Small red *Mace* was bought in at 1s. 5d. per lb.; wild partly sold at 5d. per lb. Some wild *Cinnamon* was bought in at 4d. per lb. *Pepper* is lower, Singapore black having been done at 5½d. per lb. for February-April steamer, and at 5½d. on the spot. There is very little doing in white, and quotations are nominal.

SULPHUR.—From Messina we hear, under date of December 14, that prices are firm, in spite of limited demand, because the Arglo-Sicilian Sulphur Company and outside producers are not obliged to realise. The stock on November 30 in Sicily was 269,268 tons, against 221,470 tons on November 30, 1898. About two-thirds of the stock consists of best thirds, good thirds, and current thirds, which qualities can be bought cheap. The quotations are:—Best thirds, 84s. 6d. per 2,240 lbs.; best thirds, 74s. 6d.; good thirds, 72s. 6d.; and current thirds, 71s. c. and f.

WAX (BEES).—In auction to-day 165 packages of Zanzibar wax were offered, of which 79 sold at 6l. 17s. 6d. to 7l. per cwt. for good to fine brown; dark ditto, part wormy and drossy, 6l. 12s. 6d. to 6l. 15s. Mozambique, good brown rolls, 6l. 15s. per cwt.

A New Sulphur Company.

The formation is announced at Cologne of the German-Venezuelan Sulphur Company, with a capital of 2 000 000m., for the purpose of working sulphur-mines at Carapate, besides the construction of a cable railway from the coast to the mines.

Bogus Cinnamon

We recently published a paragraph to the effect that quantities of a bark somewhat similar to cinnamon were being shipped from Ceylon as the real article, and that the matter had come before the Assistant Conservator of Forests at Ratnapura, where the sham bark is chiefly procured. Official notice has now been taken of the evil, and the Collector of Customs at Ceylon has issued a declaration to the effect that the description "cinnamon" will not be admitted at the Customs, and exporters must declare the bark as being either "plantation cinnamon" or "wild cinnamon."

Cardamom-cultivation in Travancore

We learn from the latest Administration Report of the Travancore State that the cultivation of cardamoms is increasing with great rapidity, and European planters are now entering on the business as land has been taken up under a new system. It is expected that this movement will develop production not merely in quantity, but in quality and price, as at the present time Travancore cardamoms appear to sell at about half the rate of Mysore article. During the year, 319 new paltas were issued for 6,000 acres of forestland, and 6,000 acres more have been applied for and are under survey.

Banda Nutmegs and Mace.

Mr. O. Kamerlingh Onnes has written for *Holland Abroad*, an Amsterdam periodical of which he is editor, an interesting and well-illustrated article on "Banda Nutmegs and Mace." He traces the history of these spices from 300 years ago to the present time, showing that about the year 1600 the industry was a monopoly in the hands of the Dutch East India Company. In 1796, however, the Banda group of islands were ceded to the British, and remained in their possession until 1816, when they were restored to Holland. When the Dutch were masters in the East they endeavoured to confine the growth to the one island of Banda, and the trees in the other islands were systematically destroyed. These monopolising efforts were considerably hindered from the distribution effected by the fruit-pigeon. Indeed, it was found necessary to send a commissioner every year to the different islands to uproot the trees sown by the agency of

these birds. Dealing with the collection of these spices, Mr. Onnes says that work in the nutmeg-woods finishes at 3 P.M., when the collected fruit is delivered at the *pagger*, where the warehouse, drying-house, and other outhouses are located. On entering all the pickers squat down in the open gallery to separate the ripe fruit from the unripe. After inspection and sorting, the nuts are taken to the drying-shed, where a low fire is constantly kept smouldering. Here the nuts are spread out and dried on a second flooring of split bamboo constructed above the fire. After about six weeks the nuts may be considered dry, which is evidenced when they begin to rattle. Being subject to the attacks of a worm the nutmeg is often covered with dry lime, or soaked in a paste of lime and water, as a preventive before it is shipped. As regards the mace careful treatment is also required in order to ensure the best appearance. It loses, of course, when dried the bright purple hue which it possesses in its natural state, but the orange colour should be as vivid as possible. In contrast with the nut, mace contains only 7 to 9 per cent. of ethereal oil, but it holds an abundance (23 per cent.) of aromatic fat. Immediately the mace is loosened from the nut it is spread out on matting or flat wickerwork, and cured in the sun in a few days. During the process of drying it is trodden flat in order to avoid its breaking when in a perfectly dry state. The remaining work on the estates is the packing and forwarding.

Alterations in Import and Export Lists.

A General Order relating to the above has been issued by the Board of Customs, to take effect from January 1, 1900. In the import-list the following articles among many others are specified under "New Headings":—Fruit-juice (not containing spirit), glue, size, and gelatin (cwt.); mineral waters (doz. bottles); scientific instruments (not electrical) (l.); soap and soap-powder (cwt.). Madder, madder-root, safflower, &c., are in future to be included with "dye stuffs, unenumerated." In the export-list the following are mentioned under "New Headings":—Aerated waters (doz. bottles); blacking and polishes (cwt.); plumbago crucibles (cwt.); dentists' materials (l.); glue, size, and gelatin (cwt.); oilseed cake and other animal foods (other than bran and pollard) (ton). The Board also state that a further revision of the import and export lists is now under consideration, and request the attention of importers, exporters, and agents to the new requirements.

Coming Events.

Thursday, December 28.

Royal Institution of Great Britain, at 3 P.M. Professor C. V. Boys on "Fluids in Motion and at Rest" (l.). This course of lectures, adapted to young people, will be continued on December 30, 1899, and January 2, 4, 6, and 9, 1900.

Friday, December 29.

London Institution, Finsbury Circus, E.C., at 4 P.M. Lecture by Dr. A. H. Fison on "Light and Colour." This lecture is one of a course of four, adapted for young people. The course will be continued on January 1, 4, and 8, 1900.

Glasgow Chemists' and Druggists' Assistants' and Apprentices' Association, 100 West Regent Street, Glasgow, at 9.15. "Reproduction in Plants," by Mr. M. Meldrum.

THE Chemists' Annual Ball will be held on January 17, 1900, at the Portman Rooms, Baker Street, W. Tickets—17s. 6d. (gentleman's) and 12s. 6d. (lady's)—can be had from Mr. W. Warren, 24 Russell Street, Covent Garden, W.C., or any of the stewards.

THE next Cinderella of the Chemists' Assistants' Association will take place on January 4, 1900, at the Portman Rooms, W. Tickets may be had of Mr. C. Morley, 3 Bucklersbury, E.C., or Mr. H. H. Robius, 113 Ridley Road, Forest Gate, E., or any member of the committee.

THE programme of the Friday evening meetings of the Royal Institution includes discourses by Lord Rayleigh (January 19) on "Flight," Signor Marconi (February 2) on "Wireless Telegraphy," Professor J. R. Green (February 9) on "Symbiosis and Symbiotic Fermentation," Major Ronald Ross (March 2) on "Malaria and Mosquitoes," Professor Clowes (March 9) on "Bacteria and Sewage," Sir Andrew Noble (March 23) on "Some Modern Explosives," and Professor Dewar (April 6) on "Solid Hydrogen."

WE learn that Lieutenant Whiffen (p. 1018) received a gunshot wound in the thigh, and is progressing favourably in the hospital at Pietermaritzburg.